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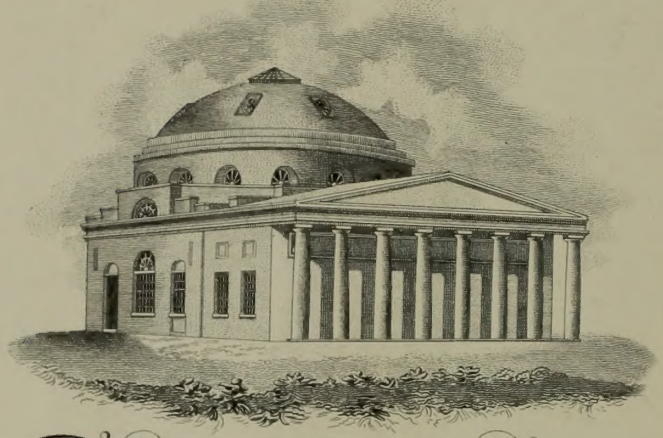

University of Maryland

University of Maryland Theses

Early Doctor of Medicine and Doctor of Physic Dissertations with Corrected Tables of Contents

These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

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Albert, Charles	Chronic Gastritis
Hill, Thomas L.	Bronchitis

[1] Title page faded. Text partially faded.
[2] Could be Stansell, John M.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

Author	Title
Chapman, Nathaniel	Inflammation its Pathology and Treatment
McCleary, J. Randolph	Intermittent Fever
Parker, Amos Edward	Pneumonitis

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UNIVERSITY OF MARYLAND

THESES

1872

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AN

Inaugural Dissertation

ON

The Anatomy of the Heart

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Wm. G. Young

of

South Carolina

26

Session of 1871-2.

MD
18964

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The Heart is a hollow [illegible]
[illegible] part of the circulatory system.
It lies between the two [illegible]
and constitute the Mediastinum,
and is enclosed in a proper membrane, the pericardium. The pericardium is a conical fibrous membrane, in which the heart and the commencement of the great vessels are contained. Like all the serous membranes it consists of two layers; an external fibrous, and an

internal serous. [illegible]
attached, above, to the [illegible]
the base of the heart, [illegible]
[illegible] with the [illegible]; and [illegible]
[illegible], to the cordiform tendon of the [illegible]
phragm. The serous membrane [illegible]
the heart with the commencement of
its vessels, and is then reflected upon
the internal surface of the [illegible]
pericardium. The heart is placed [illegible]
[illegible] in the chest; the base is directed
upwards and backwards to the right,
and corresponds to the interval between
the fifth and eighth dorsal vertebrae;
the apex forwards and to the left, [illegible]
ing to the interspace between the [illegible]

above mentioned, as the situation of the apex. Its anterior surface is rounded and convex, directed upwards and forwards, and formed chiefly by the right ventricle. Its posterior surface is flattened and rests upon the diaphragm. The right border is long, thin, and sharp; the left short, but thick and round. The adult human heart measures about five inches in length, three and a half in breadth in its broadest part; but more larger and smaller proportions are consistent with a healthy condition. Its average weight is eleven ounces for the male, and nine ounces for the female.

The heart is composed of two auricles and two ventricles which are distinctly marked off on its exterior surface by groves. The auricle forms the basal end of the organ, the ventricles its body and apex. A longitudinal septum divides the heart into two lateral halves, which are named respectively, from their position, right and left; and a transverse constriction divides each half of the organ into two cavities, an auricle and a ventricle. This organ therefore is in reality made up of two hearts, joined together side by side, separated in structure and differing in function.

whence the right side is sometimes called the [illegible] or venous heart, the left side the arterial or [illegible] heart.

The right auricle receives the dark colored blood from the entire body. From this auricle, the blood passes into the right ventricle, and from the ventricle, [illegible] the pulmonary artery into the capillaries of the lungs. From these it is returned as arterial blood to the left auricle. From the left auricle it passes into the left ventricle, and is distributed through the entire body. It constitutes the source of the circulation in the arteries

If we now examine, in the order of the circulation of the blood the free cavities of the heart the following appearances will present themselves.

The Right Auricle is a [illegible] membranous sac, of a flattened form, [illegible] the heart, but connected with its external free surface. It consists of two parts, a principal cavity or sinus and an appendix auricular. The sinus is the quadrangular cavity placed between the two venae cavae, its walls are extremely thin; below it is connected with the right ventricle, and internally with the left auricle being free in the rest of its extent.

The appendix auriculae, named from a fancied resemblance to an ear, is a small conical muscular process with denticulated margins. It projects [illegible] forward and to the left side, overlapping the pulmonary artery. [illegible] of the auricle [illegible] [illegible] When we cut into it [illegible] [illegible] present themselves for examination; these we will now consider. [illegible] [illegible] [illegible] upper and front part of the auricle, the direction of its orifice [illegible] and forwards. [illegible]

tuberculum Loweri. The coronary veins open into the right auricle, the largest being sometimes called the coronary sinus. This sinus often between the mouth of the inferior cava and the auriculo-ventricular orifice. Its orifice is guarded by a semi-circular fold of the lining membrane of the auricle, the coronary valve. Occasionally this valve is double. The apertures of the smaller veins are called foramina Thebesii.

The Eustachian valve is formed by a duplicature of the lining membrane of the auricle, containing a few muscular fibres. It surrounds

rather less than one half of the orifice of the inferior cava, and extends between it and the fossa ovalis, upon which latter structure it is gradually lost. It is semi-lunar, the free edge being concave. It is large in the foetus, and serves to direct the ascending current of blood through the foramen ovale into the left auricle.

The fossa ovalis is an oval depression marking the place of the foramen ovale in the foetus. It is situated at the lower part of the septum auriculorum, and is nearly surrounded by a thick ring, the a

nulus ovalis. The musculi pectinati are comb-tooth-like fleshy columns, which cross the inner part of the auricular appendix and the contiguous portion of the wall of the sinus.

The Right Ventricle is triangular in form. Its anterior or upper surface is convex, and forms the larger part of the front of the heart. Its posterior surface is flat, and rests upon the diaphragm. Its inner wall is formed by the septum ventriculorum which bulges into the right ventricle. This ventricle extends from the right auricle to near the apex of the heart.

When laid open the ventricle exhibits two distinct parts: one which communicates with the auricle by a large and free oval aperture, called the auriculo-ventricular orifice, through which the blood passes from the auricle into the ventricle; the other, known as the infundibulum, or cone arteriosus, from which the pulmonary artery arises. The auriculo-ventricular orifice is situated at the base of the ventricle, near the right border of the heart, and corresponds to the centre of the sternum between the third costal cartilages. It is

placed towards the left side of the auriculo-ventricular opening; interposed between that opening and the pulmonary artery.

The central part of each segment is thick and strong; the lateral margins are thin and indented.

The free margins and ventricular surfaces of these segments afford attachment to a number of delicate tendinous cords, the chordæ tendineæ. These are the tendons of the columnæ carneæ. They are connected with the adjacent margins of the principal segments of the valve, and are further attach-

ed to each segment in the following manner; first, three or four near the attached margin of each segment, where they are continuous with the auriculo-ventricular tendinous ring; others, four or six in number, are attached to the central thickened part of each segment; and lastly, the most numerous and finest are connected with the marginal portion of each segment.

The columnae carneae are round muscular columns which project from nearly the whole of the inner surface of the ventricle, excepting near the opening of the pulmon-

formed by a duplicature of lining membrane, strengthened by fibrous tissue. They are attached, by their convex margins, to the wall of the artery, at its junction with the ventricle, the straight border being free, and directed upwards in the course of the vessel, so that, during the passage of the blood along the pulmonary artery, these valves are pressed against the sides of its cylinder, and the blood flows freely through; but if any attempt at regurgitation ensues, they become immediately expanded, and effectually close the entrance of the tube

The margin of these valves are somewhat thicker than the rest of their extent, and each valve presents in the centre of its margin a small fibro-cartilaginous nodule, called corpus Arantii, which looks in with the other two during the closure of the valves, and secures the small triangular space that would be otherwise left by the approximation of the three semilunar folds. Just behind these valves are three pouches or dilatations, one behind each valve. These are the pulmonary sinuses or sinuses of Valsalva.

The left auricle is somewhat smaller than the right, measuring about one inch and a half in length. Like the right, it has a principal cavity or sinus, and an auricular appendix. The sinus is cuboidal in form, and revealed in front by the pulmonary artery and aorta; internally, it is separated from the right auricle by the septum auriculorum. When this septum is held up to the light, it is seen to present a round, diaphanous spot, which indicates the former situation of the foramen ovale of the fœtal

and of the fossa ovalis of the right auricle. The pulmonary veins open into this sinus at its posterior part. The appendix auriculae is somewhat constricted at its junction with the auricle; it is longer, narrower, and more curved than that of the right side, and its margin more deeply indented, presenting a kind of foliated appearance. Its direction is forwards and towards the right side, overlapping the root of the pulmonary artery. The pulmonary veins, two from the right and

two from the left lung open into the corresponding sides of the auricle. The two left veins frequently terminate by a common opening. The musculi pectinati are fewer in number and smaller than those on the right side; they are confined to the inner surface of the auricle. The Left Ventricle is more conical in shape and larger than the right ventricle; its walls are about twice as thick, except near the apex. It forms a small part of the left side of the anterior surface of the heart, and almost all of the posterior surface. It also forms

the apex of the heart by its projection beyond the right ventricle.

The auriculo-ventricular orifice is a little smaller than the corresponding aperture of the opposite side; and, like it, is broader in the transverse than in the antero-posterior diameter. This opening is surrounded by a dense fibrous ring covered by the lining membrane of the heart, and guarded by the mitral valve. This valve consists of but two unequal segments; the larger is placed in front, between the auriculo-ventricular and aortic orifices, and is said

to prevent the filling of the aorta during the distension of the ventricle. Generally two lesser segments also exist at the place of union of the greater. The mitral valve is formed precisely like the tricuspid; but is thicker, and altogether stronger. It is attached to the circumference of the auriculo-ventricular orifice, in the same way that the tricuspid valve is on the opposite side. The mitral valve flaps are furnished with chordae tendineae; the mode of attachment of which is precisely

similar to those on the right side; but they are thicker, stronger, and less numerous.

The columnae carnea admit of a subdivision into three sets, like those upon the right side; but they are smaller, more numerous and present a dense interlacement, especially at the apex, and upon the posterior wall. Those attached by one extremity only the musculi papillares, are two in number, being connected one to the anterior, the other to the posterior wall; they are of large size, and terminate by free round-

ed extremities, from which the chordæ tendineæ arise.

The aortic orifice is a small circular aperture, in front and to the right side of the auriculo-ventricular opening. Its position corresponds to the sternum, on a line with the lower border of the third left costal cartilage. It is guarded by the semilunar valves, which are placed around the commencement of the aorta, like those of the pulmonary artery.

In structure, they resemble those of the right side, and their mode of attachment is the same. They

are, however, larger, thicker, and stronger; and the corpora Arantii are larger and more prominent than those of the pulmonary artery. The fossae between the semilunar valves and the cylinder of the aorta are larger than those at the root of the pulmonary artery; they are called the sinuses of Valsalva. The capacity of each cavity of the heart is nearly the same, and may be assumed as two ounces. The Endocardium is the serous membrane which lines the internal surface of the heart; it assists in form-

-ing the valves by its reduplications and is continuous with the lining membrane of the great bloodvessels. It is very thin, smooth, and diaphenous; and dips into the sinuosities formed by the columnar and pectinated muscular fibres. This membrane is thicker in the auricles than in the ventricles, and thickest in the left auricle.

Structure of the Heart. The heart consists of muscular fibres, and of fibrous or tendinous rings which serve for their attachment. The muscular

structure of the heart is based upon what the anatomist Lower called the tendinous circles, into which he traced the origin and insertion of all the muscles of this organ. These circles, to which Vieussens has given the name of fibrous ganglions, are four in number; one surrounds each auriculo-ventricular orifice, and another is found encircling the orifice of each of the great vessels arising from the heart. Those of the left side are the strongest. The auriculo-ventricular ones serve for the attachment of the

muscular fibres of the auricles and ventricles and also for the mitral and tricuspid valves. The fibrous rings surrounding the arterial orifices, serve for the attachment of the great vessels and semilunar valves. Each ring also receives, by its ventricular margin the attachment of the muscular fibres of the ventricles.

The muscular fibres of the heart are intricately arranged; those of the auricles and those of the ventricles being mutually independent.

Fibres of the auricles. In the auricles we have a common and a proper set of fibres. The former may be traced along the anterior surface of both auricles, embracing them like a belt, but not extending entirely around the posterior surface. Some of these fibres pass into the inter-auricular septum. The internal fibres proper to each auricle consist of two sets, looped and annular fibres. The looped fibres spring from the auriculo ventricular ring, and return to it again. They envelope the auricle before and

behind, passing sometimes at right angles, sometimes obliquely to the ring. The annular fibres pass round the auricle in a horizontal direction, and are continued to a considerable distance along the trunks of the vessels. The fibres of the ventricles are in the auricles, these are disposed in layers, some of which are common to both ventricles; others belong exclusively to one ventricle.

The superficial fibres are either longitudinal, or more commonly oblique or spiral.

in their direction. They run obliquely from right to left and from above downwards, on the front of the ventricles; while on the back of the ventricles they are directed more vertically, and pass from left to right. The two sets of fibres meet and decussate at the heart's apex, forming a remarkable gyration, called the vortex; they do not, however, terminate at this point, but turn upward towards the base of the heart and form the deep seated layer of fibres. The latter stratum, which is

expressively called the reflected fasciculus, constitutes the proper parietes of the ventricles and gives off the columnae carnea; thus, in the words of Cruveilhier, the anterior superficial fibres form, by their reflection, the deep layer of the posterior parietes, while the posterior superficial fibres, after being reflected, form the deep layer of the anterior parietes.

Circular fibres. Between the superficial and the deep or reflected portion of the ventricular fibres, are some which have [illegible]

circular or transverse fibres of the ventricles; these form round each ventricle in a circular direction, some obliquely, some at right angles to its axis; they form a sort of funnel or truncated cone, which is applied to that of the opposite ventricle.

The superior openings of these cones correspond to the auriculo-ventricular orifices; while the inferior, which are smaller, leave opposite the apex of the heart considerable intervals, filled up by the common fibres. These proper fibres are extremely

tortuous. They are attached by their extremities to the auriculo-ventricular rings, describing more or less complete circles and intersecting each other at very acute angles.

Vessels and Nerves. The heart is supplied with blood for its nutrition by the two coronary arteries, anterior and posterior. The veins accompany the arteries, and terminate in the right auricle. It has also lymphatic vessels. The nerves of the heart are derived from the cardiac plexus, which is partly sympathetic, and partly cerebro-spinal in its origin.

A Thesis

on

Typhoid Fever.

Presented to the Faculty of the Medical Department of the University of Maryland, for the degree of Doctor of Medicine,

by

S. W. Dickinson

of Virginia.

Session

1871-72

A Thesis
On Typhoid Fever.

Typhoid, is a name first applied to a particular disease by M. Louis, who by the analysis of many cases first showed. This condition to be a distinct disease.

The Anitomical characters peculiar to this disease are to be found in the intestines. We find the Solitary, & Aggregate glands to be the affected parts

These undergo first an enlargement from the deposit of new matter, or enlargement from the increased normal secretion, due to increased vascular supply — by

which they are made to project several lines above the surrounding mucous membrane. According to Virchow, the enlargement is due to "hyperplasia of the cellular elements" forming the glandular follicle.

After this enlargement they are said to present a number of dark points over the greyish translucent surface. When the patches thus raised are put under the finger, they are said to have a hard feel. The mucous membrane now becomes congested, & of a reddish purple hue around the diseased point — gradually the inflammatory process continues until the gland is ulcerated into, & opened when it discharges its contents into the intestine.

The ulcer thus left is in the sub-mucous connective tissue; exposing often the muscular coat of the intestine at its base, & having shelving over its upper part, & surrounding the orifice leading into it, the mucous membrane of the part. These ulcers, & diseased glands are found in the ileum, most numerous in the lower part, but extending up into the jejunum. Their location in the intestine is mostly on the side of the intestine away from the mesenteric attachment. This ulceration may continue & perforate the intestine by a minute opening; or the intestine may be opened by a large orifice at the ulcerated point by sloughing, or over distention of the diseased muscular & peritoneal coats.

These are the lesions most commonly seen in this disease, & are considered, as a part of the disease. Other parts are quite frequently diseased, as, the mesenteric glands, softening of the Spleen, ulceration of the pharynx, oesophagus, larynx, trachea, hypostatic congestion of the lungs, or frequently true Pneumonia may occur.

The Nervous system is generally more or less affected, but post-mortem examination shows no lesions in proportion to the symptoms; usually there being some slight congestion of the brain, or more or less effusion into the cranial cavity — as often perhaps nothing. Muscular structure in general is softened especially that of the heart. Blood has a venous appearance, & is wanting

in fibrin. Kidneys shows no particular diseased condition, being sometimes congested & again unusually pale.

Causes. Foul air from decomposing animal matters in a partially confined atmosphere, & general neglect of hygenic laws. Emanations from the excreta from bowels of a patient having the disease diffused through the air of apartments. It is thought that these excreta may get into the source, from whence water is obtained & thus become a common center of disease. Age modifies to some extent the disease being not often seen in children & then taking the remittent type. While during youth & manhood it is more frequent & again

Bronchitis is a quite constant
Symptom in most cases, commencing
in the early stages of the disease -

less frequent after 30 years of age, as at that time the glands of Peyer begin to atrophy, or become less active in their function.

By some it is thought to be contagious by others not, it is usualy well to err on the safe side, & prevent any one entering the room whose services are not required.

Symptoms. The disease is usualy gradual in its advent. frequently not forcing patient to his bed in eight or ten days.

During this period the patient is languid unable to take any exercise, to concentrate his attention, or exercise his mind. has but little desire for food. As the disease advances the symptoms become more marked.

Patient has a chill, with but little reaction & not recurring at regular intervals. A dull headache

now commences, or pain in back + limbs.
Stomach becomes irritable as shown by nausea + vomiting: at the same time there is great susceptibility to the action of purgatives.

Tongue is covered with a creamy fur in its center, with red edges + point.

Skin is hot + dry - pulse frequent as it soon goes up to 100 or to 120. Thermometer shows increase of heat in proportion to the frequency of pulse. The fever is highest at from about three o'clock P.M. until towards midnight when it diminishes but never entirely leaves the patient.

The face of patient first flushed soon becomes dull + livid - all animation is lost, the patient seeming gradually to loose all thought of his surroundings.

Bleeding from the nose frequently occurs.

Lenticular spots now are to be seen on chest & abdomen. The pulse with slight exacerbations is frequent & feeble. The bowels are loose. The passages being slightly yellow in color, resembling pea soup, very foetid & with alkaline reaction. Pain is experienced in the right iliac region on pressure. Gurgling may be heard in the bowels from the passage of gas through the contents of the intestine. Tympanites is frequently present at this period. Urine is small in quantity & highly colored. Urea & uric acid are present in large quantity from the decay of tissue going on in the body. Chloride of Sodium is almost entirely absent.

Difficulty of protruding tongue or having subsultus tendinum. Stupor & coma are

more marked as the disease advances
About the twelfth or fifteenth day the tongue becomes dry & the fur is gradually cleaned off — may again appear over the tongue —

Diagnosis, From local diseases of the intestinal canal by its tardy & insidious approach, its symptoms gradually increasing in violence for some days; & from its depressing the system more violently than the local diseases. From Remittent fever by the greater violence of the gastric symptoms in Remittent, by the yellow skin & the locality where patient resides —

From Typhus fever by the sudden appearance of Typhus, without the earlier symptoms of Typhoid — by the suffused eyes, spotted skin & the contagiousness of

Typhus. Bowels not so irritable in Typhoid as in Typhoid. From Meningitis by the want of abdominal symptoms & diarrhoea. If Pneumonia be present it may be known by the physical signs.

The most diagnostic signs of this disease, are the abdominal, as tenderness on pressure, gurgling in iliac region, diarrhoea & tympanitis. The gradual rise of fever & the symptoms, as debility bleeding from the nose, the eruption & the want of remissions are almost peculiar to this disease.

Prognosis. is nearly favorable. Unless complicated with Pneumonia, Peritonitis or Hemorrhage. Frequent pulse & great prostration are bad symptoms.

If the temperature rises above 105° or 107 degrees it is an unfavorable symptom.

Death usually takes place by asthenia, but when this is kept off & the nervous system is not much disordered a favorable termination may be expected. Perforation is the great danger during the last stages of the disease & the commencement of convalescence.

Treatment. In the treatment of this disease it should be remembered that it can not be cut short, that it runs a definite course of from 15 to 20, or more days & that the danger in most cases is asthenia, which if it be avoided the patient may be expected to recover.

The sulphites have been used Empirically

to "stop Inundation", but experience has not shown them of service.

The skill of the practitioner is shown in many cases by watching his patient properly & in treating the symptoms after the crisis has taken place, by using medicines which tend to debilitate the patient.

It is always well as soon as patient is confined to bed to see that ventilation is properly cared for in the room. There should be an abundance of fresh air, but currents should not blow on the patient. if possible they should be avoided in the room. Evacuations from the bowels should have some good disinfectant used in them immediately on their passage &

Them removed from the room & house
Disinfectants should be used in the
room & house daily -

Patients clothing & linen & bed should
be removed daily if possible -

Ice, & ice water should be allowed, but
not in quantities to upset stomach.

Water acidulated with citric acid is also
grateful to the taste & diminishes the fever.

Patients food should be such as
can be easily digested - of nutritive character
& causing at same time but little excrementi-
-ous matter in intestines. Well cooked
bread with milk is very good food - to
which may be added beef tea eggs, & Chicken
broth. Food should be taken every
2, 3, or 4 hours as the case may demand, &

in quantities such as will not overload the stomach causing vomiting & indigestion.

When there is a decided asthenic condition, stimulants, as brandy, wine &c may be given in form of egg-nog, & wine whey frequently repeated - Thus combining food & stimulants. Stimulation is usually called for in all cases, but should be used with care & as the case may demand.

They should not be used at the commencement of the disease, but when the pulse is frequent & feeble, & the strength begins to decline.

Stimulants should be given in small quantities at first & increased as the case may demand. Under their use the temperature is diminished, pulse is increased in force & diminished in frequency, & the

Mineral acids are much given in
this disease throughout its course.

nervous symptoms usually abate in violence & patient may sleep. This is the treatment required in most cases - The Medical treatment being 'expectant' that is, treating symptoms as they arise.

Early in the disease headache is present & demands some treatment - For this may be used externally, ice or cold water douche & warm equal parts or brandy & water equal parts - The head should be kept cool & it may be necessary to cut off the hair.

Patient should have bath & clysma may be used for that purpose, & in the later stages brandy, wine &c may produce the effect desired.

Delirium must be treated with caution. In the first stages in robust patients antimony &c in small doses may be required

Opium & brandy are useful in most cases, especially in last part of the disease.

The bowels demand especial attention. At first they should be opened if costive with Castor oil or an enemata, but no violent purgative should be used. If as in many cases there is diarrhoea, it should not be allowed to run on to such extent as to debilitate the patient. To stop this Bismuth, Catechu, Rhatany, Sulphate of Copper &c may be used in combination with opium.

Oil of turpentine has been used since the naming of the disease in the treatment of the ulcerated patches in the bowels in doses of from five to twenty drops in mucilage.

This should be given so soon as the fur begins to clean off the tongue & it becomes

dry, red + cracked, + is to be continued until
patient is passed all danger from perforation

Tympanitis is often present + produces
disagreeable symptoms; interfering with respira-
tion + causing pain in the abdominal region
also may cause rupture of bowel by mechan-
-ical distention. Enemata containing
turpentine is often serviceable in this condi-
-on, or some of the aromatics. Bandages
around abdomen are sometimes serviceable
or tube of stomach pump may be introduced
into the rectum.

When pain is experienced in the
abdominal region, hot fomentations, mustard
plasters, turpentine stupes &c may be used
over the abdomen with advantage.

The urine should be

watched, as often the patient will allow the bladder to become over distended.

Its chemical composition should also be noticed & if urea be deficient, diuretics & diaphoretics should be given to prevent uremic poisoning.

Convalescence is slow & needs as close attention as the disease itself. The patients should not be allowed to exert themselves too early after the disease has passed, such as sitting up in bed, walking, as these may cause a return of a fatal character.

Straining should not be allowed as it may cause rupture of the intestinal coats; at the same time diarrhoea is to be controlled. Food of a nutritious kind & more solid in character than during the

fever is now to be allowed; but still such as fruits + vegitables can not be too strongly spoken against, + in no case should they be allowed until the patient is passed the danger of perforation. Stimulants are still to be used in tonic doses. They now show more of their intoxicating effects than during the progress of the disease + should be gradualy diminished in quantity

As the patient gets stronger gradualy introduce more air into his room, but be careful of changes of temperature, as in his debilitated condition he is subject to a great many diseases. Before the patient can walk it will be well to have him removed into another room + so soon as he is able to sit up into the

exercise. Locomotion should be carried on gradually, the patient inhaling each time more exercise of a gentle kind

Mental relaxation is to be secured - nothing should be allowed to engross the patients mind but his own well being. To obtain this and pleasure this is desirable when the patient has means: when this is not to be had good effects may be experienced by change of employment scene, & the circumstances which present themselves in the case.

Moral influences are not to be neglected by the physician but should be used to the fullest extent.

Other points connected with this discuss are necessarily omitted

on account of the short space usually assigned to a thesis.

AN

Inaugural Dissertation

ON

Fever

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

L. A. Aldridge

Of

Maryland

Session of 1871 - 1872.

Fever.

Fever is considered one of the most frequent and dangerous affections to which the body is liable. It is almost universally regarded as the widest outlet of human life, and has hence been for ages an engrossing theme with the ablest medical philosophers. We must confess with sorrow, what it would be presumption to deny, that this diligent and persevering inquiry has been attended with a degree of success far from flattering, and that we are still, in reference to the whole subject, involved in lamentable ignorance and uncertainty. To detect clearly the intimate nature of fever, to discover the essential mode or modes of morbid action in which it con-

-sists, to throw light upon these points, so long wrapt in impenetrable obscurity, would indeed form an era in our art, would constitute emphatically a revelation in medicine. Few writers have hesitated to acknowledge the vagueness of the views entertained concerning some of the observed phenomena, and the difficulty of defining what was so imperfectly understood, a large proportion of them have nevertheless ventured to propose, each in his turn, a doctrine or "theory of fever" as the phrase is, which should exhibit, and serve as a substitute for those of his predecessors. It would not be difficult to show the insufficiency and inexactness of every one

upon this lengthened and still accumula-
-ting catalogue, but the task is to us un-
-gracious and unprofitable. To describe,
however, is far easier than to define, and
many phisicians, both ancient and mod-
-ern, have drawn and transmitted down
to us pictures or portraits of the several
types of fever which deserve, for their
graphic vividness and their exact
correctness, the most unqualified praise.
The incipient changes, the primary mod-
-ifications of action in fever, have not been
detected, or pointed out, but there is no want
of hypothesis on the subject. But it must
be admited that the difficulty of the study
of fever is in proportion to its interest.

Of the cases of this complex disease which will be met in practice, perhaps no two will be exactly alike, and, at different periods, we will meet with different groups of phenomena, of which the one will throw no light on the study of the other. A similar want of correspondence will exist between your own observed cases, and the descriptions of many writers of mon-agraphs on fever, the best of these being descriptions of some epidemic, which per-haps may not correspond in its char-acteristics with the one under your own observation. In short, if the clearness of our views of a subject is, as we believe, in direct proportion to the comprehensiveness

of our knowledge of its nature and re-
-lations, there is every reason why fever
should be that disease regarding which
the most confused ideas are entertained
by students in general, and by not a
few members of the profession. This
will appear from the fact that in
no disease has so much controversy
existed with reference to its nature,
classification, origin, diffusion, path-
-ological anatomy, or treatment, as in
fever. If this be so, we should endeavor,
by all means, to enlarge our views of
the subject by looking at it from vari-
-ous stand-points, and with regard
to its various relations: studying its

analogies with other cognate diseases, and comparing the several functions deranged by fever with the same functions in their healthy condition; so as thus to build up synthetically in our minds, a concrete idea of this complex series of phenomena, at the same time that we are engaged in the daily analysis of these phenomena at the bedside. We will find that by conjoining these two modes of study, each enlightening the other, what at first appears a confus-ed and contradictory subject, will be-come gradually clear and in harmony with the laws of physiology in health and disease. I shall consider fever,

using the term in a general sense, as an object of study, regarded from different points of view: 1st, As one of the group of morbid poisons; identified with them by similarity of origin, and by conformity to certain laws; like them received into the blood, affecting the entire organism, and exerting its influence on different organs in succession; like them, having its periods or stages of incubation, maturity, and decline; and like them reproducing itself in the blood of the affected person. 2nd, As requiring a susceptibility to its influence in the individual exposed to it; and as varying in its operations

according to the nature, seat, and extent of this susceptibility or predisposition.
3rd. As generated in the living body - "an animal miasm," or derived from without it by exposure to some form of malaria - "civic miasm" - or arising from epidemic influences; each several source giving origin to a form of fever essentially distinct from all other forms of the disease. 4th, As presenting pathological phenomena, primary or essential, arising out of the affinity of the poison for certain tissues or organs, as well as out of the special predisposition of the organ; secondary or accidental, arising from some peculiar exciting

cause; from secondary contamination; Or from reactive irritation set up during the course of the fever. 5th, As having a more or less definite course and duration, and presenting certain phenomena at its resolution or crisis; and as exhibiting certain differences in the modes of its fatal termination, and its morbid anatomy, in different forms of the disease. 6th, As presenting rational, general indications of treatment and management common to all forms of fever, and special indications for different forms and complications. The question what is fever, or the theory of fever, is a subject which cannot be passed over

in this study, and which yet we must approach with diffidence, and discuss with no little reserve. It has been well said that "Such a theory presupposes and involves a knowledge of the intimate processes and relations of the living powers which has not yet been attained. It requires also a knowledge of the agency, or combination of agencies, which sets in motion that concatenation of disordered actions, that complex combination of morbid processes which constitutes fever. We must also know the seat and character of these morbid processes and modifications, their peculiarities, their tendencies. The

differences which exist between them in the several forms of febrile disease. We must know their relations to each other which are primary and essential, which secondary and accidental. Of these things, as of the causes of fever and their mode of action, we are, to a great extent, ignorant; they are known to us rather analogically, and by comparison with other morbid processes, than absolutely, and positively. The morbid processes to which fever presents most striking analogies, are those set up in the body by the action of morbid poisons, or what are termed zymotic disease, among which

it is accordingly classed. The principal analogies to these may be thus stated:- Fever, like other morbid poisons, has a latent period, or stage of incubation, during which none of the febrile phenomena are manifestly set up, but at the expiration of which its influence is felt by the entire organism. Like other poisons, its influence seems directly proportioned to its intensity, and, like them, when this is such as to kill at once, there is the least post-mortem evidence of its action, the morbid appearances being found in such cases not in the parenchyma of organs, but in the confluence, so to

speak, between the blood and the tissues, and consisting of congestion or stagnation of blood in an altered condition; like other poisons, it displays peculiar elective affinities, these being modified, in some cases, and directed to certain tissues or organs, by their existing condition with regard to nutrition; it being well ascertained that parts undergoing active retrograde metamorphosis are peculiarly subject to the operations of morbid poisons. As with them its operations may be modified by temperament, or family and personal peculiarities, by epidemic influence, by the coexistence

in the blood of other poisons, as well as by the contaminations originating in the body of the patient from defective elimination or retained secretions. In like manner it is reproduced in the blood as they are while the susceptibility to its influence seems to become exhausted by the attack, the susceptibility to the influence of any other morbid poison remaining undiminished; and lastly, like them it has a natural tendency to cure through the elimination of its products by critical evacuations in patients in whom there exists a healthy condition of the excreting organs. All our observa-

tions tend to prove that the direct action of the poison of fever and in fact all morbid poisons, is that of catalysis; in other words, that the poison has a force or power by which a compound body like the blood is decomposed by mere contact with it. If we look for the portion of the organism the most adapted by its nature, constitution, and functions, to become the subject of such catalytic change, we surely find it in the blood, in which the chemical and vital forces are in such perfect equilibrium that a change in it is effected by every disturbance, however

trifling, or from whatever cause it may proceed, moreover, we find that in patients killed by the direct action of an intense fever, prior to the blood is fluid, and otherwise changed in character. Again, if we meet with cases of peculiar proneness to receive the infection of fever, or other zymotic diseases, we find the cause in a change in the blood, whether produced by over-crowding, or the breathing of putrid emanations, or famine, or the decomposing action of water applied to the surface of the body, by which a breaking up and solution of the blood-corpuscles is effected; and if we examine the

worst complications of fever, we find that they are the result of decomposi-
tions set up by the presence in the
blood of the products of retrograde met-
amorphosis of tissue, such products
giving rise to the worst forms of sec-
ondary inflamations which occur in
fever. Much labour has been expended
in the controversy between the Solidist
and Humoralists whether the primary
action of the fever poison is exerted upon
the nervous system or the blood. The
Solidists generally assume they are of
the nature of irritation or of inflamation,
excited in the first instance by some
agent capable of impressing an irreg-

ular or morbid influence, directly, or secondarily, by reaction supervening upon a transient state of debility, or prostration. The Humoralist maintains, on the other hand, that the phenomena of the latent period or stage of incubation, both point alike to the blood as the seat of the operations of the fever poison, while it is through the conjoined agency of the nervous system and the blood, that the phenomena of the formed disease are produced. I have just mentioned, as one of the laws of morbid poisons, that these affect the entire organism, using the word in the comprehensive sense of the

aggregate of the molecules of which the body consists. We have every reason to believe that this holds good of fever, and that the first step in the fever process is a modification of the functions of nutrition, "of which function" says Mr. Paget, "the tissues and the blood are the principal factors in their mutual relations. I believe that it is in the alteration of this relation between blood and tissue that fever commences: here is the seat of its operations, not in the parenchyma of organs, but in the confluence between the blood and the tissues. If so, the first impression of the fever

poison must be upon the blood into which it is received, in which it is rapidly augmented, and through which it is diffused. It is still a moot question whether this change in the attractions between the blood and tissue is immediate and direct, or is effected by the medium of the nervous system, more especially of the eighth pair. Virchow's definition of a theory of fever being - Fever consists essentially, in elevation of temperature, which must rise from an increased tissue change, and have its immediate cause in alterations of the nervous system." Some believe there are no good eviden-

-ces of any such alterations during the stage of incubation, or up to the period of the initiatory rigor, which may be regarded as the first symp-tom of the moderating nervous cen-tres becoming influenced by the fever poison. But in all the phenomena which succeed the invasion of fever, the blood and nervous system are joint-factors. "As the blood," says Claude Bernard, really describes a circle, the diastaltic nervous system describes a cycloid. As the blood dif-fuses its atoms into every minute space of the system, the diastaltic spinal system extends its influence

over every one of these atoms. The blood undergoes its changes in the meth-aematous or blood changing (or capillary) channels, placed between the alternate branches of the arteries and the incipient roots of the veins; to the same point the diastaltic spinal system extends its wondrous influence. In accordance with this, we find those functions deranged in fever which, like animal heat, are the product of the joint influence of these factors; not only, do we meet with local hyperaemia, active and passive congestion and inflamations, but we find the blood morbid in its qualities, and all the secretions vitiated,

The true question is as to the precedence and succession of these changes. The Solidists affirm that the organs are dis-ordered in the performance of their func-tions merely by undue determination, and excitement deficient or excessive; the Humoralists, that the fluids are changed in condition previously to any perceptible changes in the modes of organic action. Thus Potter tells us that in experimenting on the subject, he found the blood altered in appear-ance during the prevalence of Yellow-fever, in persons who as yet retained seemingly their usual health. These changes in the blood being occasionally

at least, the precursors of an attack. I shall not hesitate to retain the long distinction of fevers into symptomatic and idiopathic. My senses and my reason both recognise an obvious difference between the febrile disorder consequent upon, and produced by, a wound of soft parts, dislocation of a joint, or fracture of a bone, and that which, however apparently analogous, arises without the occurrence or manifestation of any notable accident, or evident change previously affecting the body, or any of its parts; and there seems to be little risk of confounding exanthematous fever and that which is

connected with inflammation of the pleura, or the brain, with any of the numerous types attributed to malaria, and offering at their invasion no constant injury of a special organ, but rather disturbing its disturbing influence over the whole constitution. There is much dispute, however, as to the point of local origin. Clutterbuck fixes it in the head, and regards fever as nothing more than the secondary or constitutional result of inflammation of the brain and its membranes. Broussais attributes it to an inflamatory irritation of the mucous tissue of the digestive tube, and especially the stomach. The pathology

of fever as regards our present knowledge of the essential nature of the several fevers, what has been ascertained respecting one is alike applicable to the others; or, to vary the expression, we know no more of the nature of any one than of all. The following questions at once arise:- What morbid phenomena are necessary to establish the fact of the existence of an essential fever? What are the characteristic symptoms of this elementary form of disease? How is an essential fever to be defined? It is not easy to give a few striking characters which are at once distinctive of fever, and a short definition is not true-

-ticable. There is not, however, a corresponding difficulty in recognizing the existence of a fever at the bedside. Practically, the problem generally is, to determine whether a fever be symptomatic or essential. An enumeration of the obvious phenomena belonging to an essential fever, that is, of features common to all essential fevers, embraces the following points: In most cases the invasion is not abrupt or sudden, but there is a period of access, or a forming stage. Different fevers differ as regards the time occupied in the development of the disease, and certain prodromic symptoms are peculiar to particular

fevers. Generally, the development is attended by a chill or chilliness, and frequently by rigors. The pulse becomes more or less accelerated, and usually, there is a very perceptible increase of the heat of the surface. The thermometer shows, as a rule to which, probably, there are no exceptions, more or less increase of temperature; hence, the source and significance of the name fever. Anorexia and thirst usually present; nausea is rarely wanting, and often vomiting occurs. Other symptoms are, frontal headache, pain in the loins, and limbs, lassitude, restlessness, vigilance, or imperfect sleep. The urine and most

other secretions are diminished. The scantiness of urine, however, is due to deficiency of water. The urea and uric acid, as a rule, are increased, a fact showing an augmented destructive assimilation. There is more or less rapid and notable loss of weight, the loss being greater than the reduction of alimentation. In most of the fevers the morbid phenomena continue for a limited period and then spontaneously end; the muscular debility is usually sufficient to cause the patient to take to bed. The combination of all these phenomena would not denote an essential, as distinguished from

symptomatic fever, without this negative condition - viz. the absence of any local disease adequate to account for them. We judge, then, that a patient has an essential fever of some kind, when he presents an ensemble of certain symptoms with the proviso just stated. But it will be seen that the different species of fever present, severally, certain symptoms which are characteristic of each species of fever, that is, distinctive on the one hand, of fever as contrasted with other diseases, and, on the other hand, of a particular species of fever as contrasted with other species. The foregoing sketch of the phenomena of fever shows it to be

a general disease; that is it affects in its manifestations the entire organism. The language of Fordyce, with reference to this point is not less pertinent now, than when penned more than half a century ago: "A fever is a disease which affects the whole system; it affects the head, the trunk, and the extremities. It affects the body, and it affects likewise the mind. It is therefore, a disease of the whole system in every kind of sense. The causes of fever, there is reason to believe that each species of fever has its own special cause, that is, a cause which gives rise only to that particular form of disease; hence, there are as many

special causes as there are different species of fever. Concerning the essential nature of these special causes, their generation, the manner of their entrance into the system, and their primary action within the body, our present knowledge is very limited. Some of the causes are evidently of terrestrial origin, and some consist of either a virus or miasm produced within the body of another. The special causes appear to be aided in their morbific action by various auxiliary causes, the latter of which seem to be required to give efficiency to the special causes. Of the nature of the pathological condition which constitutes an essential

fever, we have no positive knowledge. Can we not, however, go further than merely to say it is one of the elementary forms of disease? Here, as in respect of another elementary form of disease, viz. inflammation, we approximate in some measure towards an explanation of the pathological condition if we are able to trace its primary seat in the organism; in other words, to ascertain the portion of the body first acted upon by the special cause. The phenomena which constitute the manifestation of fever are evidently, to a great extent, independent of each other; they do not follow in a chain of successive

sequences, but are obviously alike effects of a pathological condition which must be seated in a portion of the body - having extensive relations within the organism. There would seem to be, in fact, in the body only two anatomical systems having relations so extensive as to be able to give rise to the train of morbid phenomena in fever, viz. the nervous system and the blood. Now the phenomena of fever point to the existence of a morbid condition of both of these anatomical systems. The question then arises, which is primarily affected, or in which is the essential pathological condition in fever seated. The answer to

this question, which would be given by most pathologists at the present time, is, the blood is the portion of the body most affected, and the essential pathological condition in fever is here seated. The correctness of this doctrine is not demonstrable; it has not been proven by direct observation that the special causes giving rise to the different species of fever act primarily upon the blood. But the doctrine is most consistent with our existing knowledge. We know that one of the essential fevers, viz. variola, or small-pox, may be produced at will by the introduction into the system of

a palpable material, or virus, and an immense quantity of this material, or virus, is produced; Now, reasoning analogically, it is to be inferred that, in like manner, a poisonous matter is introduced into the blood when-ever other species of fever are produced.

XX

An Inaugural Dissertation
on
Pyaemia

Submitted to the Examination
of the
Provost Regents and Faculty
of Physic of the
University of Maryland
for the Degree of Doctor
of Medicine
by
John F. Kuling
Lampasas Ypsilanti
Texas

Session 1871–72

Pyaemia

Definition. A state of the blood in which pus globules are found floating among the proper blood disks.

Causes. Pyaemia, like erysipelas commonly occurs at those seasons of the year and under those atmospheric conditions in which diseases of a low type are prevalent. The most common and certain cause of this disease, is the [illegible] of patients suffering from suppurating wounds in hospitals; and it is in unhealthy and cachectic constitutions that this disease most frequently manifests its self, and is more frequently met with in adults than in children.

Pyaemia is a very frequent cause of death after operations, and [illegible] especially in overcrowded hospitals, situated in large towns. It is disposed to by all conditions of life either before or after operations or injuries that tend to [illegible] to lower the system, and to induce an unhealthy state of the blood. [illegible] want of [illegible] overcrowding, and impure nourishment.

Of all these causes, overcrowding is most [illegible] especially if there be many suffering from suppurative wounds under the same roof. Pyaemia is the result of improper hygienic conditions, namely, want of pure air,

Specially by two series of phenomena
[illegible] peculiar train of constitutional
symptoms attended by a state
of great depression of the system
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
and followed by [illegible]
[illegible]
A single [illegible]
and then the disease [illegible]
But more frequently the [illegible]

repeated at intervals of from twenty
four to forty eight hours, and
as the disease becomes established
they may recur twice or oftener
in the twenty four hours.
As the rigor subsides the patient
breaks into a sweat, first about the
face, and then the head and thence
over the body. They are very
exacting to the patient.
As soon as the sweating [illegible]
on the temperature [illegible]
to rise and continued [illegible]
[illegible] the [illegible].
The rigors, heat and sweating
increasing at [illegible]

[illegible]

[illegible] that of an ague fit.

The breath has a peculiar sweetish [illegible] and in fact the body generally often occurs early in the disease and may always be looked upon as an unfavorable sign.

The pulse is quick and soft, the face [illegible] with a very [illegible] [illegible] look, and eyes [illegible] with slight [illegible] of [illegible] [illegible] delirium [illegible] [illegible] [illegible] when [illegible].

The symptoms now indicate an extreme depression of the [illegible] powers, the pulse becoming small, and

fluttering, the tongue which has been
dry, [illegible] brown, [illegible]
about the teeth, and low delirium.
From the sixth to the tenth day sup-
puration begins to take place in
different tissues, joints, and organs.
Secondary abscesses are one of the
most marked features of pyaemia.
Abscesses of this mind usually con-
tain a thin oily look [illegible]
though at other times [illegible]
thick. Pyaemic abscesses differ
from ordinary purulent collections
not only in the peculiar character
of the pus, but with the parasite
with which they [illegible]

attain a large size in a few days. It sometimes happens that accumulations of pus suddenly form in joints without having been preceded by pain or any other sign; in these cases the joints will be found to be tolerably healthy, though filled with pus, there being no destruction of ligaments or cartilage.

Diagnosis. The diagnosis of pyaemia may be made 1 from ~~rheumatism~~ ordinary surgical fever, 2 from aqueous from rheumatism. 1 The diagnosis from ordinary surgical fever, and typhoid fever, is usually easy.

the course being unbroken by severe rigors, by sudden fluctuations of temperature or [illegible].

These symptoms which are so characteristic of pyaemia, does not occur in other forms of febrile disease. The temperature in ordinary fevers is uniform and continually high. From ague the diagnosis would not be easy in the earlier stage if the patient has been exposed to malarial influences as well as to the common causes of pyaemia as in a person injured while in a swampy region. In [illegible] the absence of [illegible] and [illegible]

surgical cause of pyaemia, will render the diagnosis simple. 3 From rheumatism, it is easy to make the diagnosis of pyaemia provided the rigors and other early symptoms have been well marked. But independent of the rigors the great prostration, the development of visual abscesses of areolar suppuration, and the patches of erratic erysipelas will establish the true nature of the disease.

Prognosis. The prognosis of pyaemia is always bad. The disease being dangerous to life, health, and limbs. When acute pyaemia has fairly set in, recovery is very rare. The patient

dying between the fourth and fourteenth days: these attacks are followed by profuse sweats, and extreme exaustion, which is regarded always as being fatal. The danger and rapidity of the fatal termination will depend on the rapidity of the recurrence of the rigors and their severity.

When the attack [illegible] from the first a chronic form it may be recovered from after prolonged illness and the formation of large abscesses and continued disturbance of the general health.

Treatment. The preventative treatment of [illegible] consists in

attention to the proper hygienic measures, such as pure air and a good nourishing diet. [illegible] of these matters) [illegible] the patient is treated after an operation or during pyaemia is always [illegible] [illegible] the patient has been exposed to malarial influences [illegible]

[illegible]

conditions.

Iron and Quinine may be given just before or after an operation [illegible]

take it, and enjoined with a

[illegible]

[illegible]

[illegible] as the [illegible]

[illegible]. The curative treatment

of [illegible]

[illegible] may recover after

[illegible]

[illegible] Stimulating treatment

consists in [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

such as wine and brandy.
The patient should be kept
in an airy room, and the
parts kept clean.

AN

Inaugural Dissertation

ON

Intermittent Fever

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Samuel K. Merrick

Of

Talbot County Md.

Session of 1871-72

In accordance with the time-honored
Custom requiring candidates for the de-
gree, Doctor of Medicine, to write a Thesis up-
on some subject connected with Medi-
cine, I would respectfully submit to the
Faculty of the University of Maryland, some
remarks on the following subject:—

Intermittent Fever.

As the student of Medicine, is com-
pelled to rely mainly upon the experien-
ces of others, it becomes almost a matt-
er of repetition, with him (of ideas, if not
of words) in attempting to write a "Thesis"
as he has had but little experience himself;
it therefore, seems eminently proper, that he shou
select that subject, with which, he is most
familiar, and about which, his experience
has taught him something: hence, I elect-
Intermittent Fever: having witnessed the pre-

grip of many cases, I can speak in some measure, the "things which I do know", and not rely entirely, upon what others say.

Intermittent Fever is a disease, marked by the occurrence of febrile paroxysms, at regular periods of time; between which paroxysms, there is an absence of fever. The intermission of the fever, is characteristic of the disease. It is known by the names, "fever and ague", "chill fever", and sometimes, by the name of the locality, in which it occurs: e. g. "Panama Fever". As a rule, intermittent fever is not dangerous to life, but, when it assumes the pernicious form, it is extremely dangerous. Where persons have been affected for a long time with the disease, serious disorders have been induced, and in this way, has proved the remote, or indirect cause, of death.

Anatomical Characters.- There seems to be

no characteristic anatomical lesions: yet, some assert, that there is a bronzing of the brain and liver, in a certain proportion of cases.

Clinical History.— In considering the clinical history, we can either regard the paroxysm or the affection in question — being the regular recurrence of a short distemper — or take both the paroxysm, and intermission, as the datum.

A paroxysm is made up (when complete) of three distinct stages, viz: the cold the hot and the sweating stage.

Cold Stage.— Previous to, or during the introduction of the cold stage, the patient experiences a sensation of debility, and epigastric distress; he comes weak and languid, having no disposition to mental, or bodily exertion; in a word, has a general feeling of malaise. The sensation of cold, is first felt in the back, along the course of the spine; the face becomes

pale, the features shrunken, and the skin assumes a dry and suffered appearance resembling very much, a plucked goose; hence, called cutis anserina. As this stage progresses, Dr. Watson says, "The patient feels very cold, and he acts, and looks, just as a man does, who is exposed to intense cold, and subdued by it; he trembles, and shivers all over; his teeth chatter sometimes, so violently, that such as were loose, have been shaken out; his knees knock together; his hair bristles slightly, from the constricted state of the integuments of the scalp; his cheeks, lips, ears, and nails, turn blue; rings, which before, fitted close to the fingers, become loose; his respiration is quick, and anxious; his pulse frequent sometimes, but feeble; and he complains of pains in his head, back, and loins; all the secretions are usually diminished; he may make water often, though generally he voids but

little, and it is pale, and aqueous; his bowels, are confined, and his tongue, is dry and white". This is of course, a typical case - a case, where the cold stage is severe; but one so minutely, and graphically described, I could not resist from quoting his words.

Hot Stage. - When the cold stage, is about to disappear, sensations of heat pass over the body of the patient, alternating, with sensations of cold; the heat sensations, gradually increase in frequency, until they monopolize the patient, as it were, subduing the cold stage, entirely. Sometimes, however, the hot, is the first stage - there being no sensations of cold experienced. Sometimes, but a small portion of the patient's body is affected with cold, as cold feet, nose or ears.

The hot stage, is characterized by more or less febrile movement. The pulse becomes ac-

celerated, the skin, assumes its natural appearance, but does not stop here; becomes abnormally reddened; cephalalgia continues, but pains in the back, and limbs, generally disappear. If the thermomiter be placed in the axilla, a considerable increase in temperature, will be observed, rising sometimes, to 105°, a 106°, Farh. There is usually, great thirst. The duration, and intensity of the fever, varies in different cases. Generally, subsides in a few hours, may last, as long as eight. The patient is exceedingly uncomfortable, and restless; the urine scanty and high-colored. After a time (variable) the spasm of the peripheral vessels, which existed in the cold stage, passes off, and the increased action of the heart, sending more blood to the surface, induces the

Sweating Stage. - The approach of this stage, is an indication, that febrile

celerated, the skin, assumes its natural appearance, but does not stop here; becomes abnormally reddened; cephalalgia continues, but pains in the back, and limbs, generally disappear. If the thermomiter be placed in the axilla, a considerable increase in temperature, will be observed, rising sometimes, to 105°, or 106°, Farh. There is usually, great thirst. The duration, and intensity of the fever, varies in different cases. Generally, subsides in a few hours, may last, as long as eight. The patient is exceedingly uncomfortable, and restless; the urine scanty and high-colored. After a time (variable) the spasm of the peripheral vessels, which existed in the cold stage, passes off, and the increased action of the heart, sending more blood to the surface, induces the,

Sweating Stage. - The approach of this stage, is an indication, that febrile

action, will soon cease. We are not certain, however, that the sweating stage, causes the febrile movement to cease. It may be an effect, of the decrease of fever. In some cases, the sweating is profuse, in others, but slight. Urea, uric acid, and the chlorides, are increased, during, and after the paroxysm. Albumen is often found in the urine, and haematuria, exists in a few cases.

One of the most curious facts, connected with intermittent fever is, that the paroxysm returns. Some have attributed it, to peculiar habit of the body; but this cannot be taken, as a satisfactory solution of the question; and we are in the main, ignorant of the real cause, of the recurrence of the paroxysm; it is a strange, and interesting fact.

Certain terms have been adopted by

particulars, for the purpose of distinguishing the varieties of intermittent fever, which we will now attempt to explain.

The space between two paroxysms, is called the intermission; the space between the beginning of one, to the beginning of another, the interval. The interval, is the basis of a division, into varieties, commonly known, as types of the disease. There are three simple types of intermittent fever, viz: the quotidian, tertian, and quartan type. In the quotidian type, the paroxysm occurs daily, or once in twenty four hours; the tertian ague, occurs every third day, or once in forty eight hours. But I think, with Dr. Watson, that it (tertian) is a misnomer. He says, "if the type occurring daily, can correctly be called quotidian, then, for the same reason, should the type occurring every second day, be called

secundum". Nosologists, have however, counted the first and three days, and as it is perfectly understood, it is probably better, that the name remain unchanged. In the quartan type, the interval is seventy-two hours. Of the three simples types, the quotidian and tertian, are most frequently met with. Examples of the quartan type, are not frequent. Of 98,237 cases, of intermittent fever, in the U.S. Army, only 1,757, were of the quartan type, being one, in about every fifty five cases. With regard to the relative frequency of the quotidian, and tertian, the latter, is said to be more common: yet, it has been observed, that the tertian may predominate in one season, and at the return of the season, the quotidian will predominate, in the same locality.

Each type, has other characters, peculiar to itself. The quotidian, is apt to occur in the

ning, the tertian, at noon, while the quar-
tan, occurs most frequently, in the after noon. The
above, is not always true, but we generally find
this order. It has been observed also, that pa-
roxysms of all the types, as the disease increas-
es in severity, may occur at an earlier time in
the day, which denotation, is called Anticipat-
ing; on the other hand, when the disease has
expended its energies (if we may so speak) or,
when its course has been interrupted, by remed-
ial agents, the paroxysm comes on later—
this is called Postponing. Besides these three
simple types, of intermittent fevers, authors
speak of the quintan, sextan, heptan, and oc-
tan type. Experience shows, however, that other,
than the simple types, are extremely rare.
It is said, that the disease sometimes chan-
ges types - the quotidian, preceding the ter-
tian, or vice versa.

Cases have been met with, in which, one of the simple types, was duplicated - two paroxysms, occurring on the same day. We have the double quotidian, and the double tertian. In a double tertian, the paroxysms may occur daily, or two occur, on each alternate day. When the paroxysms occur daily, they come on, at different hours, on successive days, but at the same hour, on alternate days. Another compound type, is the double quartan. In this type, a paroxysm occurs, on two successive days, and none, on the third day. The last compound type, of which we have to speak, is the triple quartan, where the paroxysm occurs on three successive days - This type resembles the quotidian, the main point of difference being the resemblance of the paroxysm on the first day, to that, on the fourth, while those of the second and third days, differ

from both the first, and fourth. "These compound types", says Dr. Flint, "are extremely rare, except the double tertian, and merely interesting, as curiosities of clinical experience".

Paroxysms may occur at any hour in the day, but is doubtful, whether they ever occur at night, especially, if uncomplicated with other affections. In/ Given the paroxysms, the patient may be perfectly well, or complaining of slight debility; in other cases, there may be marked prostration, with defective, or no appetite. Sometimes, the paroxysms are incomplete - one, or more of the stages, being absent; thus, the heat and sweating may occur, without any previous rigors; or, rigors, without subsequent heat. The sweating stage, may be the only stage of a paroxysm. Often, there is no distinct stage - the patient experiencing frequent, and unusual chills; feels languid, and depressed. This state is known, as, "dumb ague", or "dumb chill".

All persons are subject to intermittent fevers, at all seasons of the year; but they are most commonly affected, during Spring, and Autumn, hence the names, vernal intermittents, and autumnal intermittents. It is said (cautionary views) that the young and aged, are less liable to the disease, than the middle-aged; but the aged, are by no means exempt from the affection. It has been demonstrated clearly, that the foetus, in utero, may have intermittent fever. Dr. Russell reports a case, where a pregnant woman suffering with tertian ague, observed her child to shake on alternate days, being the days on which she was unaffected. Both had tertian ague, only the paroxysms occurred on different days. The aged and young are less frequently affected, probably, because they are less frequently exposed to malarial poison, and not because they are less susceptible to

the action of the poison, [illegible] frequently affected; from the same cause. Debility, is a marked predisposing cause to malarial fever, and all diseases in malarious districts, are apt to be complicated with malarial affections. The predisposing causes, are many; such, as; exposure to cold, debilitations, excessive muscular exertion, and especially, fear & mind. It has been satisfactorily proven, that the malarial poison, may exist latent in the system for weeks, months, and even years; and attack, be developed by some exciting cause.

Causation. The cause of intermittent fever, is a special morbific agent, known as malaria. The existence of a special cause, is proven by the fact, that, it occurs only in certain localities, and is controlled by remedies, having a specific action. The production of this poison, was formerly attributed to vegetable decompo-

sition in marshy localities, hence, was called by Lancisci, in 1717, marsh miasm. But, it is now known, that there is another poison, besides the one evolved in vegetable decomposition, which is capable of giving rise to the disease, without the presence of vegetable matter. Observation shows, that it occurs most frequently, in marshy districts, but, that it is by no means confined to such localities.

It is scarcely ever developed, at a lower temperature, than 60°, Fahr., and a temperature of 39°, prevents the evolution of the poison. As we approach the equator, the disease becomes more virulent, and abundant. Within the tropics, it is the bane, and scourge of large tracts of country. It is said to be certain death, to pass through some of the Brazilian forests, after sunset. The poison has an affinity for dense foliage, which has the power of purifying winds,

that blow from malarious regions.

Atmospheric currents, may transmit it for miles.

Turning up the soil, has developed it in previously healthy localities.

Water, may absorb it, and contaminate those who drink of it.

Its existence in any district, can only be ascertained by experience.

As a country becomes cleared up, and thickly populated, periodical fevers disappear, and typhoid, in many instances, follows.

The poison is generated, only in the Summer season.

The specific gravity of the poison, keeps it near the ground, hence persons sleeping in an upper story, often escape its bad effects, while those on a level with the ground, are affected.

It is scarcely necessary to state, that, the disease is non-communicable, from one person to another.

From recent investigations, Dr. Salisbury of Physiology, Hygiology, and Pathology, in the Charity Hospital Medical College, of Cleveland Ohio, states, that, malaria, is a species of algoid plants, called Palmellae, which belong to the lowest of vegetable organisms. He applies the name Miasma to these plants, signifying earth miasm. He also calls them ague plants. The salivary, and mucous secretions of persons living in malarious regions, examined in the morning after rising, with microscope, and found to contain cells of an algoid type, resembling the palmellae. But these cells, could not be found in the secretions of persons living in non-malarious districts. Neither were these vegetable growths, found in non-malarious regions; therefore, it was inferred, that, the cells found in the secretions, and these ague plants, were identicle. Other experiments were made, which argue very strongly, in favor of Prof. Salisbury's

theory, and it will doubtless prove highly beneficial to Medical Science, should experience sanction the correctness of his observations; for, measures may then be taken, to destroy the plant, and thus eradicate this terrible malady. Prof. Salisbury states, that, this can be done, by "sprinkling the soil with caustic lime".

Diagnosis.- In well marked cases, there is no difficulty in arriving at a correct diagnosis of intermittent fever. Sometimes, the paroxysms are so slight, as to avoid observation, or may be complicated with other affections, and thus be overlooked. In pulmonary tuberculosis, febrile paroxysms sometimes occur, having the three stages of intermittent fever; but, there occur generally, in the afternoon, which fact is considered a diagnostic sign. Chills attendant upon inflammation, may suggest as possible, the action of malarial poison, but the irregularity of their occurrence, will general-

...ake clear the diagnosis. It is said Catheterism, and lithotomy, are apt to produce paroxysms, resembling those of intermittent. The presence of the ague plant in the urine, is a diagnostic sign, if Prof. Salisbury's theory be correct. Fortunately, the remedy indicated for malarial fever, will not prove hurtful, if given when the disease is not present, and the diagnosis, can generally be cleared up, by the administration of that agent.

Prognosis. - The disease, when uncomplicated, is not immediately dangerous to life; but, as has been stated, may induce after a time, serious disorders, such, as; anaemia, general dropsy, or malarious cachexia.

Treatment. - Happily for humanity, we have a remedy, which is almost a specific in the treatment of intermittent fever - Peruvian Bark. If there are any specifics, in the Materia Medica

the preparations of Cinchona, can justly be classified among them. The sulphate of quinia, is the preparation generally used, having most medicinal power in the smallest bulk. The sulphate of cinchona, is scarcely inferior to quinia, but, it requires larger doses to produce the same effect.

It was formerly the custom, to give emetics, and cathartics, and often bloodletting, was employed, to relieve the patient, and prepare his system for the reception of Quinine; but, experience has taught, that, such a course is useless, and often productive of much mischief. The sulphate of quinia should be given as speedily, as possible, after the paroxysm has passed off; it is probably better to give the drug, during the sweating stage. It is often given in the midst of the paroxysm, with the very best effects. It is rarely necessary, however, in this latitude, to trouble the patient with the unpleasant dose, during the paroxysm. Accua-

ing to the best authorities, quinine should be administered, immediately after the paroxysm, in a five gr. dose, and repeated every two or three hours, till there is evidence of cinchonism, which is indicated, by tinnitus aurium.

Quinia, when given in large doses, diminishes the force, and frequency of the hearts action, and may prove dangerous to life, by its sedative action, upon that organ. If it becomes necessary to give it in large doses, it should be given in combination with alcohol, which counteracts its sedative influence. Observation shows, that it increases the secretions of the liver, kidneys, and skin, thus, eliminating the noxious, and effete materials from the system. Consequently, no eliminants medicines are required; unless there be constipation.

During the cold stage of a paroxysm, the patient should be placed in bed, well covered up, and hot bags of salt, or bricks applied to the feet,

... if necessary, to other portions of the body. Warm diluent drinks may be administered, and a dose of opium, a Dover's Powder, will often (it is said) cut short this stage of the paroxysm, both ... by its combined anodyne, and diaphoretic effects.

During the hot stage, cold applications may be made to the head; and sponging the body with cold and tepid water, is highly recommended by some, but it is generally unnecessary to resort to this proceedure, ice water, and lemonade may be freely taken.

When the sweating stage comes on, little need be done, as the paroxysm soon passes off. The body may be wiped dry with warm flannel, and the wet linen and bed-clothes replaced by dry ones care being taken that the patient do not take cold. If quinine be now administered, as above directed, the disease will generally be arrested. A small dose of the drug should be given for several days, after

the fever may have disappeared, & and, in malarious districts, small doses may be taken every morning, as a prophylactic with great advantage.

There are several preparations of cinchona, the most important of which, is Arsenic. Fowler's Solution (in doses of ten drops three times a day, to an adult) is the preparation usually employed. Salicin, Strychnia, nitric acid, ferrocyanide of iron - Prussian Blue, piperine, and many others, have been used with more or less success.

There are many peculiar & intermittent fevers, which are generally spoken of under the treatment, but which I have purposely omitted, as not properly belonging to the subject.

[illegible] of [illegible] Hernia.

from the German of

W. Roser, Prof. of Surgery

[illegible]

Translated by Chas. F. Bellerman

and presented as a thesis to the Faculty of

Medicine of the University of

Maryland.

[illegible] February 1872.

... in which I abandoned ... of the production of ... and ... to found a new one, contain much that was fanciful and fallacious. And when two years subsequently I recognized the deficiencies, and sought to substitute for the ... ... tomical observation, they received but little ... from ... ... has is, at present forgotten. I have the matter rest a long time and only occasion... sought to bring up its recollection.

Why is it impossible to demonstrate a tur-
ma upon the cadaver. [illegible]
[illegible] a bare place when the abdomen
is powerfully pressed. When the
aponeurotic wall of the abdomen
are slit and the abdomen suffected
to a pressure of several hundred [illegible]
[illegible] horse powers. The [illegible]
[illegible]
is not sufficiently elastic to stretch
to the degree required by a rupture.
Secondly: Because pressure upon [illegible]
[illegible]
[illegible] follows the law of hydrostatics
and according to this may stretch the
peritoneum but not protrude it [illegible]
[illegible]

(1)

with mechanical principles, but it is necessary to offer in its stead, another, and well founded. The propositions offered by me were as follows: Femoral Hernia result from gradual traction upon the peritoneum, and Inguinal Hernia are for the most part congenital. Concerning femoral hernia I can but repeat what I made known fifteen years ago. The structure of the peritoneum [illegible] [illegible] [illegible] [illegible] [illegible] closely connected with the peritoneum. These masses or strands of fat pile trade between the fibres of the Septum Crurale, forcing them apart

and causing their dropsy warrants.
The foremost portion of this [illegible]
[illegible] as it passes out upon the
thigh, beneath the pleca, and covered
by the superficial fascia, enlarges
[illegible]; this facilitates
its movement, and favored by the mo-
tions of the body it glides forward
drawing the peritoneum with it and
forming a hernia sack. This is the
manner in which femoral hernia
begins. Any one who will examine into
the matter will find this statement
corroborated. I have seen in the past seven-
teen years many incipient femoral
hernias, and have always found the
[illegible] of above a

[illegible]

[illegible] named [illegible] not be [illegible]

[illegible]

absorbed by pressure from [illegible].

[illegible]

[illegible]

[illegible] little [illegible] especially not in a

systematic and consistent manner, and when in some

instances it was found it did not pass

[illegible]

only, as a curiosity. Meanwhile there

with [illegible] (Dr. [illegible]

[illegible] of the [illegible]

now Professor at Würzburg) who has

closely studied the anatomy of

femoral hernia, and who has

examined a large number of

this, [illegible] hernia upon the dissecting table, has concealed what I [illegible] taught upon this subject without being [illegible] of my [illegible] ion. He expresses himself upon the subject in the following words. It is a force silent upon us of the impossibility of the [illegible] intestine playing the most important part in the formation of hernia sacks [illegible] of ruptures the formation of the peritoneal [illegible] [illegible] [illegible] [illegible] a secondary relation to it. [illegible] consequence of traction upon the peritoneum

[illegible] about [illegible] the disappearance
of cellular tissue, or the shrinking of
a lymphatic gland, or through the
[illegible]
[illegible]
[illegible]
[illegible]
mechanical condition which is a [illegible]
[illegible]
The oblique direction and valvular
construction of the [illegible] inguinal
ring. But notwithstanding the clearing
with which this valvular arrangement
pointed against the truth of the old theory
of the pressure being the cause of rupture,
and, the obvious deductions to be
made from the same, the argument

[illegible] had been regarded as acquired did not deserve this name, inasmuch as their sacs had existed since birth. We are wrong in holding a rupture as an acquired one [illegible] an adult perceives the sudden appearance of an inguinal hernia. The probability is that such a patient always had the sack and failed to perceive anything until the previously empty sack became distended and filled. I believe that if P. Camper were still living he would sustain it. It is well known that Camper has contributed statistical accounts according to which, of sixty three mature children (in whom the Descensus testiculi was perfected) but seven of their number both vaginal canals obliterated, in fourteen of them the right side alone was closed, and Eight [illegible]

1872

Thesis on

"Scarlet Fever."

By

Jno. Hamilton Moore,

Va.

Scarlatina.

The terms, scarlet fever, scarlet rash, and Scarlatina are employed to designate one of the exanthematous fevers, remarkable for the wide diversity which it presents, as regards symptoms, and fatality. This disease may occur at any period of life, but is most prevalent in childhood.

Two varieties are generally recognized by writers, viz. mild, and grave scarlatina, the former of which is a trivial affection, comparatively, the latter there are few diseases more objectionable

styled malignant.

Anatomical Characters.

On account of concomitant diseases, or complications, it becomes exceedingly difficult to determine what are the anatomical characters of scarlatina. The following, however, are some of the facts, which have been obtained, concerning this point. In many, accumulations of granular and fatty matter have been discovered in the kidneys, by microscopical examinations. The brain, its membranes, and the lungs are frequently found very much congested, often, also, the

mesenteric, Scrotal, and pectoral glands, are considerably enlarged, and also the Spleen enlarged, and softened. In malignant cases the blood is dark, and the heart soft, and small, in other cases no appreciable phenomena can be observed in reference to the blood.

Clinical History. Scarlet fever generally begins suddenly. If there are premonitory symptoms, they are ordinarily slight, so as scarcely to attract attention, consisting of a little more than dullness, or the appearance of fatigue.

Stage of Invasion. The attack

may commence with a chill, more or less pronounced, but not infrequently wanting. The fever sets in with frequent pulse, hot dry skin, flushed face, furred tongue, anorexia, thirst, and great muscular weakness. The febrile movement, as a rule, is notably greater than in the other eruptive fevers. Vomiting is generally an early symptom, especially in children, with, in a certain proportion of cases, diarrhoea. Epistaxis is usually present, with more, or less headache. Inflamation, or irritation of the fauces always exists, which, on being examined, appear red, and

not infrequently swollen. The same color is diffused over the interior of the mouth; and the tongue, though coated with a white, or yellowish-white fur, exhibits projecting red papillæ upon its surface, and is red at the tip, and edges. The affection of the throat, and mouth is due to the efflorescence, which appears in this situation, before making its appearance on the skin. There accompanies the intensity of febrile movements, the increased heat of skin, pain in the head, prostration, and general malaise, different cases, differ widely. In very mild cases the

symptoms are so slight, that the patient does not take to the bed.

The average duration of this stage, is about twenty-four hours.

The rash makes its appearance, in most instances, upon the second day of the fever, often, sooner, earlier, or later, and often at the very commencement. A considerable delay in the appearance of the eruption is generally attributable to some complication.

Stage of Eruption. In its development, and diffusion over the body, the eruption does not observe the same regularity, as in

Scarlatina, and measles. It is first observed about the ears, neck, and shoulders in reddish indistinct patches, gradually fading off. These patches rapidly extend, and unite, and in the course of a few hours the trunk, and upper extremity, and finally the legs are covered. The redness is most vivid, and remains longest in situations, where the skin is delicate, the inner surfaces of the arms, thighs, and the flexures of the joints.

The redness is vermilion, or scarlet; it is not uniform like Erysipelatous redness, but on close inspection

the patches are seen to be studded with points, which are distinguished by a more deeply red color.

The redness disappears upon pressure, but in robust patience, and in favorable cases it immediately returns, when pressure is removed.

Slow return of the rash is evidence of sluggish circulation, and, when marked, it indicates the malignant form of the disease. The eruption produces an itching, or burning sensation, which adds greatly to the discomfort of the patient.

The eruption attains to its maximum of intensity, and diffusion

on the third day after its first appearance.

There is much variation in different cases, as to the amount of cutaneous eruption. It is sometimes slight. This is apt to be the case, when the throat affection is unusually severe; the eruption, then seeming to be concentrated within the throat.

The efflorescence fluctuates, as regards vividness, being especially marked in febrile exacerbation, and it is generally most vivid towards evening, than in the early part of the day. The throat, is more, or less affected in the vast majority of cases. In but slightly

affected; there is simply red-
ness over the tonsils, and posterior
part of the pharynx, and extend-
ing more, or less over the soft palate, with little, or no swelling.
But in grave cases the tonsils become
very much swollen, and covered
with an ash-colored exudation,
in greater, or less abundance.

This exudation is not like
that, which characterizes diph-
theritic inflammation, it adheres
less closely; it is superficial, and
cannot be detached in strips.
The inflammation renders deglutition
painful, so that difficulty

is often experienced, in giving the necessary drinks. The submaxillary and submaxillary glands, at the angle of the jaw, are frequently swollen, and tender. The tongue is generally coated with a moisture at the outset of the disease. In the progress of the disease, the coating exfoliates, leaving the surface of the tongue clean, and reddened; and the papillae being enlarged, the appearance is strikingly like that of a ripe strawberry. The strawberry-like tongue is a pathognomonic symptom; being peculiar to the disease.

The febrile movement, is not diminished, but, as much, increased after the appearance of the eruption. The frequency of the pulse, and increased heat of skin, are as much marked, in this, than any other, of the essential fevers. The pulse varies in different cases, from 100. to 140 per. minute, and although, more, or less severe, pursue a favorable course, the skin is unusually dry, and the heat, as felt in the hand, is often intense. The Thermometer in the axilla, shows an increase of temperature to 105. degrees Fahr, and occasionally

in very severe cases, a still greater increase. During the stage of eruption, anorexia, vomiting, vertigo is not uncommon, constipation exists in some cases, and in others diarrhoea. Delirium manifested by incoherency, generally exists, save in very mild cases. The duration of the stage of eruption, in the majority of cases, is from 4 to 6 days.

Stage of Desquamation.

Desquamation generally begins in the decline of the eruption, and prior to its disappearance. The degree, and intensity of the desquamation, depends upon the

diffusion of efflorescence. The cuticle is exfoliated, either in the form of minute branny scales, called furfuraceous desquamation, or in pieces of considerable or greater size. Where it is thick as upon the palms of the hands, and soles of the feet, it occasionally comes away in large flakes. Sometimes several successive exfoliations occur. In cases, which pursue a favorable course, the febrile movement diminishes with the commencement of the exfoliation, and gradually ceases; corresponding improvement taking place in other symptoms

The decrease of animal heat, or defervescence, is sometimes rapid, but in most cases gradual. If know untoward complication has occurred, the patient may be declared convalescent, though not yet exempt from liability to unpleasant, and even dangerous disease. The process of desquamation is often attended with a very troublesome itching, and irritation, and sometimes with much tenderness of the skin. In many cases of scarlatina, albumen may be found in the urine a few days after the commencement of desquamation; and when examined with microscope, it is found in these

cases, to be fatal, according to Dr. Beale, with a considerable amount of epithelium of the uriniferous tubules, or other portions of the urinary passages. The duration of this stage is indefinite. It may end in life, or in dropsy, but frequently it continues for several weeks.

The foregoing sketch of the clinical history of scarlet fever, applies to cases which are either mild, or not extremely severe.

Case found of Scarlatina.

The pulse becomes very frequent, numbering 140 to 160 per minute. Temperature notably increased, the

Thermometer placed in the axilla indicating 103 to 107 degrees, and the heat of surface is pungent except when the case approaches a fatal dermination. Sometimes there is great heat of head, and body, while the limbs are cool. This is an unfavorable symptom. Great restlessness, delirium, coma, and occasional convulsions, are other symptoms, denoting severity of the disease.

The vital forces, seem to be overwhelmed, and death may take place, before the eruption appears.

The disease in such cases is truly malignant. The gravity in these cases, is not due to any complication.

but to an unusual intensity, of the ~~of the~~ essential morbid condition, which constitutes the disease. Convulsions, coma, and delirium may be developed, as effects of uraemia. Disease of the kidneys, is an important, complication, in the majority of cases. Albuminuria occurs, either during the stage of desquamation, or eruption, continuing for two or three days only, and sometimes during the whole career of the disease, and afterwards. This symptom may not indicate, any important affection of the kidneys, and, on the other hand grave disease of the kidneys

may exist without Albuminuria.

Uraemia here, as under other circumstances, are denoted by the deficient elimination of urea. Examinations of the urine with reference to this point, are of more consequence, than with regard to albumen, and casts. Symptoms pointing to uraemia, in addition to the events already stated, are cephalalgia, disturbance of respiration occurring, without, either bronchitis, pneumonia, oedema of lungs, or any appreciable pulmonary affection. Defective vision, vomiting, and occasional diarrhoea. These symptoms should direct attention

to the urine, as regards, Albuminuria, the presence of casts, and more especially to deficiency of urea,

Sequelae { Few diseases leave a longer train of evils behind them than Scarlet fever, Among the most common, and troublesome sequelae, are the abscesses, which form in the vicinity of the parotid, and submaxillary glands, and which are very large and exhausting.

Sometimes the copious discharge of pus from these sources, is more than the weakened system can bear, and the patient, after having survived, Scarlet fever,

dies of hectic. At best they generally protract convalescence; and the constitution, even after being freed from disease, is long in recovering its wonted strength. Sometimes an abscess opens into the external meatus, and gives occasion to long-continued, and exceedingly obstinate discharge of pus from the ear. Though, more, or less deafness occasionally follows scarlatina, cases are on record, in which this affection, previously existing, seemed to have been removed by the disease. Diarrhoea is another, not unfrequent consequence of

Scarlatina, which sometimes proves obstinate, and wears out the remaining strength of the patient, though it generally yields to judicious treatment. Serous membranes, are not unfrequently attached with inflamation, in the progress of Scarlatina, or during its decline; and pleuritis, pericarditis, peritonitis may be added to its legacies. But probably the most serious of all them is Dropsy. The patient is liable to this during desquamation, and for a considerable time afterwards: the average period, being about two weeks from the

beginning of the fever; though it may occur at any time between the first and third week. It is usually in the form of Anasarca, the accumulations of ascites, hydrothorax, hydropericardium, and of hydrocephalus. The affection almost always, either suddenly terminates it, after a course, varying from three to four weeks, to as many months, or readily yields to treatment.

The Dropsy is usually accompanied with scanty, and albuminous urine, and is believed to be dependent on an active Congestion, or inflammation of the kidneys, perhaps induced

by the direct action of the poison, generated in the System, and endeavoring to escape by the emunctories. It may always be apprehended when, during the Desquamation Stage of Scarlatina, the urine is highly albuminous, and much diminished in quantity.

Cause } The cause of Scarlatina is probably specific, and is generally believed to be of a contagious nature. This has been doubted by some, notwithstanding the circumstances that one member of a family is usually first attacked, and

afterwards others, at an interval of several days, which is a strong fact in favor of contagion.

The cause generally exists, through the medium of the atmosphere.

When the disease can be inoculated or inoculation, may be considered doubtful, though cases are reported, in which the trial is said to have been made with success.

Scarlet fever frequently occurs epidemically, and there is this, seemingly in the epidemics, that they are often confined, being confined to an district of country. It may, perhaps, be questionable, whether the epidemic

influence itself, produces the disease, or only favor the action of the specific cause.

Allowing the disease to be contagious, it certainly appears not to be very strongly so; at least there are great numbers, who seem to be wholly insusceptible to its cause. That the disease may be communicated by means of fomites, is unquestionable. The infectious miasm, may be carried in the clothes of physicians, nurses, and others. The disease is probably in this way, often diffused. Facts show, that the miasm adheres to material substances, and preserves

its morbific power for a long time. Persons have been attacked, on returning to houses, in which cases had occurred, for weeks, or months afterwards, and even when elaborate efforts, had been made to remove the miasm.

Statistics show, that the disease occurs most frequently, in the third, and fourth years of life; and that the liability to it, diminishes rapidly after the fifth year, and becomes very small after forty. As a rule this disease is experienced, but once, but exceptions have now, and then been noticed. It is probable that, in many

instances, in which the individual is said to have Scarlatina twice, one of the attacks, was of Rosella, or erythema.

Diagnosis.

In the early stage, before the appearance of the eruption, Scarlatina may be readily mistake for many febrile diseases. The most characteristic symptoms are an extraordinary frequency of pulse, and the appearance of redness in the fauces. After the eruption, one of the complaints, with which it may be most easily confounded is measles. From this

however, it may be distinguished, by the absence of saturnal symptoms, the occurrence of the rash on the second, instead of the fourth day, by characteristic eruptive affection, and by the peculiarity of the rash, which is of a bright red color, more punctuated in the beginning, and more uniform at last, without the clustered, or crescentic arrangement of the subsiding eruption, and without its roughness.

From Variola, it may be distinguished, by the absence of the vesicular eruption, with umbilicated centres, which appearance, it is to be

borne in mind, is almost pathognomonic of Variola, The absence of lumbar pains, and vomiting, and especially the remission, or cessation of febrile movement at the time of the appearance of the eruptions in ~~Variolation~~, are important features in differential diagnosis, A slight bilious diarrhœa, before the efflorescence appears on the skin, may be based on a sudden attack of vomiting, with high febrile movement, and redness of the eyes, in a subject between three and six years of age, especially during the prevalence of Scarlatina,

Prognosis.

There is perhaps, no disease in the nosology, which presents, in different cases, wider extremes, as regards gravity, than Scarlatina,

Seemingly the mildest cases sometimes assume a most malignant character, and patients suddenly die with profound cerebral derangement, or sudden disease of the heart, when supposed to be quite free from danger; while convalescing cases of apparently the most desperate, sometimes end favorably.

Aside from the intensity of the disease, the danger depends, on

complications liable to occur in cases which, as regards the general symptoms, may appear to be mild. Symptoms, which denote imminent danger, from the intensity of the disease, are excessive frequency of pulse, jactilations, active delirium, and prostration, the mode of dying in these cases, being by asthenia. The prognosis is unfavorable in cases in which the throat affection is unusually severe. If laryngitis ensue, a fatal result is to be expected. Great enlargement, and suppuration of the glands of

the fever, denote great danger.

In judging of the probable result, in any particular case, reference should be had to the character of the epidemic. When this is mild, we may with some confidence, predict a favorable issue under favorable circumstances; when otherwise we should be more guarded.

Treatment.

Scarlet fever, when mild, and without complication requires little treatment. In the majority of mild cases, expectant treatment is alone

necessary. In addition to free ventilation, cooling drinks, and light nourishment, the general treatment should have reference to maintaining the functions of the skin. In view of the fact, that visceral disease, as a complication, or sequel, is a source of great danger in these cases, attention to the skin is important, however mild may be the disease. Tepid bath, once, or twice daily, is to be recommended. If the bath be not practicable, the application of a sheet wet with tepid water, or medicated

sponging of the body, may be employed in its stead, There is reason to believe, that the more the function of the skin is maintained by these measures, the less is the liability to an affection of the kidneys, either during, or after the disease. Exposure to cold is to be avoided, both while the disease is in progress, and in convalescence, but care in this respect, should not lead to error in the use of free ventilation, or of oppressing the patient with an overplus of clothing. Vigilance, or restlessness, if not relieved by the use of

bath, the wet sheet, or sponging, may indicate anodyne remedies, Constipation is to be relieved by simple enemas, When the fever is well developed, a course of internal refrigerant treatment should be adopted, The patient should be allowed to drink cold water frequently, though moderately, and to hold ice in his mouth if he desire it, Small doses of neutral mixture, solution of acetate of Ammonia, and citrate of ammonia may be given every hour, or two during the day, if the stomach is not irritable,

Should a sour smell, as often happens, exhale from the patient, he should take Bicarbonate Soda or Potassa three, or four times daily. When urine is very scanty, and especially, if a tendency to delirium, or coma be observed, mild diuretics, may be resorted to, with hope of benefit, such as. Spirits of nitre, Acetate Potassa, Bitartrate Potas, Wine Colchicum &c. In malignant cases, in which the vital powers are overwhelmed, and, whenever the intensity of the disease involves a tendency to death by asthenia, the chief reliance must be on sustaining measures.

Milk Punch, Wine Whey, Eggnog, with Alcohol, Can. Ammonia Oil Turpentine, when the powers of the system are much depressed,

Local applications in slight affections of the throat,

It is sufficient to employ demulcent, acidulous, slightly astringent, or saline gargles, such as, an infusion of flaxseed, or slippery elm, water acidulated with sulphuric acid, weak solution of Alum, nitre, or Common Salt, When pseudomembranous patches are observed in the fauces, infusion of

Capsicum, or the powdered red pepper itself, diffused in water, or vinegar is an excellent application; Solution Sulp. Zinc, containing fifteen, or twenty grains to a fluidounce of water, or Nitrate Silver in the same proportion, are also excellent applications, especially when the patches, threaten to invade the larynx. Extreme Pruritis of the Skin, is a source of much annoyance, preventing sleep, and increasing the constitutional disturbance. With reference to this symptom

the plan of treatment, consisting in the application of lard, the rind of bacon being used for this purpose, has been recommended, other applications less disagreeable are equally efficacious. Glycerine, and Rose water recommended by Dr. J. F. Meigs, may be substituted, During convalescence, it is important to guard against exposure to cold air, to keep the bowels regularly open, and if the patient remain feeble, with a want of appetite, to invigorate the stomach, and

system by the Mineral acids,
Quinine, or the Simple Bitters,

Preventive Treatment,

It is peculiarly important,
to guard children against
Scarlatina, as the older they
grow, the less liable they are
to be attacked, Hence they
should be kept separate, as
far as possible from every
source of infection; and free
ventilation of the sick chamber
should be employed in order to
dilute, and dissipate the poison.
Different prophylactic medi-
cines have been recommended,

among which R. Radix a
is the most conspicuous,
It is used in small
doses. Three grains of the ex-
tract, are dissolved, in a
fluidounce of distilled
water, and three gtt. of
the Solution, given twice
a day to a child under
one year, to be increased
one gtt. for every additional
year.

Yours very respectfully.
S. Hamilton Moore.

Feb. 1872

Inaugural Dissertation

on

Epidemic Cholera

Submitted to the

Provost, Regents & Faculty

of Physic

Of the

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for the degree

of

Doctor of Medicine.

by

James L. Carroll

February 1872.

Epidemic Cholera

This malignant epidemic is known under a variety of names such as Asiatic cholera, Spasmodic Cholera, cholera asphyxia, cholera cyanosis etc, etc. The etymology of the word it is true is singularly inappropriate, according the derivation which signifies a flow of bile, but at present our knowledge does not warrant a name expressive of the character of the disease. This disease is not essentially the same as sporadic cholera, they are two distinct affections having certain points in common but differing in some very essential points relating to pathogeny

character, clinical history, causation and prognosis. The place of origin of this disease is were known. It appears to be an indigenous affection of India, and to have existed there for a long time. Hindoostan is its congenial home, there where the heat is torrid, the population crowded, and ignorant of sanitary laws, cholera is ever lurking. The village huts closely huddled together promote it; the pilgrimages stimulate it, and Calcutta in the midst of marshes and poorly drained is seldom free from it. It should be a part of our

International system to regulate and prevent this. East India has no right to keep a nuisance at our door to scourge the whole earth. Turkey has no right to breed plagues and spread them over the Levant. But it is not our province to inquire into these things at present. It was during an Epidemic which occurred in Bengal, during the year 1817, that the attention of the Medical Profession was more fully directed towards this disease. During the following fifteen years, it travelled nearly the whole of the known world. Six years ago it travelled to

ace the countries of Europe and during the summers of 1866 and 1867. it prevailed to some extent in most of the large towns of the United States.

Anatomical Characters:-

This disease has no constant and appreciable characters commensurable with its gravity. The morbid appearances at the death are not adequate to the elucidation of the pathology. The mucous membrane of the stomach and intestines is frequently congested presenting a rose red color. Sometimes it presents a white or blanched appearance. The absence of patches and

intestinal epithelium is to be considered as an anatomical character of the disease. The liver is sometimes congested. The urinary bladder is empty and contracted, resembling in appearance the virgin uterus. The kidneys also are more or less congested. The gall-bladder usually contains bile, but sometimes a matter resembling glairy mucous. Cadaveric rigidity is marked and continues for some time. In some cases after death twitching of the muscles occur and frequently considerable movement of the limbs. In some cases

after death, the heat of the body becomes developed in a remarkable degree, the temperature being much greater than it was before death. The temperature has been known to rise as high as 112° Fahrenheit. This disease does not involve any known important lesions of the solid parts as is shown in the rabbits with which recoveries (cases) [illegible]; when the disease is promptly arrested. The morbid appearances in different cases show much variation. Some of the lesions above mentioned, if the career of the disease has been short are

very rarely found, and when it has been very quickly destroyed, very little if any morbid alteration is found.

Clinical Histories: This disease in the majority of cases is preceded by a slight diarrhoea with numerous and copious dejections void of pain. The duration of this diarrhoea is variable, sometimes lasting several days, at others a few hours only. Sometimes vomiting occurs in connection with this diarrhoea. Aside from this, Dyspeptic Symptoms there is nothing to denote the Endemic of the disease. The system seems very little if at all disturbed

and the patient does not seem to think that any special importance should be attached to the [illegible]. The simple diarrhoea, which precedes cholera, is by some reckoned as a stage of the disease. This is evidently wrong as there is nothing at that time at all distinctive of epidemic cholera; and during the [illegible] of cholera, very many are afflicted with this same kind of diarrhoea which in France is called cholerine without the developement of cholera. The developement of cholera is first denoted by the change in the evacuations.

The discharges become [illegible]
increased when Diarrhoea has
been present, and without pre-
vious diarrhoea, sudden and
copious liquid discharges in-
dicate the onset of the disease,
this attacks generally [illegible]
at night.

The discharges are Lightly
characteristic of this disease. The
dejected liquid is thin and
muddy-looking very much resem-
bling ditch-water or gruel. It
contains numerous white par-
ticles resembling rice, which
consist of pus-globules, mucus,
and de Cachea epithelium

It contains no bile, and is mixed with the peculiar faint-nauseous odor which has been compared to that of the alkaline chlorides. These discharges are known as the rice-water or cholaraic discharges. The amount discharged each time is variable. The quantity is not always in proportion to the symptoms of severity. It may exist in large quantities in the intestinal canal, when the discharges are comparatively small. The discharges do not occasion pain, on the contrary they seem to afford relief. In some cases

after the discharges have continued for some time they suddenly cease. in others the liquid is continually flowing away the patient being unable to prevent it. Sometimes the dejections are slight; and they may even be wanting. Vomiting is usually present, though in a diagnostic, and pathological view, it is less important as a symptom than the diarrhoea. In some cases it is very persistent, every thing taken into the stomach being rejected. in others it only occurs occasionally. sometimes it occurs in the beginning and subsides after a variable time. The matter is a watery

liquid, consisting chiefly of water, which has been drunk, but some it is evidently an effused liquid having an alkaline reaction. The vomiting is not preceded by much nausea, but occurs suddenly and seems to arise merely from distention of the stomach.

The above named symptoms mark the invasion of the disease. Add to these coolness of the skin, frequency of the pulse, perspiration, a sense of oppression or feebleness with occasionally cramps of the muscles of the legs, & other limbs and we have the whole clinical history of the disease.

The disease may end either [illegible] Cancerously, or be arrested without proceeding beyond this stage, which is known as the stage of invasion. In those cases in which the disease takes a favorable turn, recovery is rapid. The duration of the disease in some cases being a few hours only. But in the majority of cases a number of dangerous symptoms become developed, and the disease passes into what has been called the algid or cyanosed state, more frequently the stage of collapse. The clinical history of the stage of collapse is generally as follows: — The circulation

presents some important symptoms.
The pulse is both frequent and
feeble, sometimes rising as high as
140 per minute — at others it has
been known to [illegible] below the normal
frequency. When this stage is fully
developed, the pulse at the wrist
is extinct. Diminished frequency or
absence of the heart sounds [illegible]
[illegible] feebleness of this organ.
The venous blood becomes stagnant
giving rise to lividity — at the roots
of the nails and a dusky
hue of the lips [illegible] face. It
is from this appearance that the
disease takes the name of cholera
cyanosis and cholera asphyxia

Leech bites will not bleed as usual and if venesection be performed the blood will not flow in a continuous stream, but trickles slowly from the aperture, thus showing that the blood is thicker than in health.

The rapidity of the respiration is very observable, though sometimes the number of respirations is diminished. The respiration is sighing and the expired air is cooler than usual in health, and gives to the hand a sensation of coolness. This disease is attended with very little pain.

except from muscular contraction or cramps. In some cases the patient is very restless, and in others he lies perfectly quiet except when disturbed by evacuations and cramps. The latter are usually though not invariably present. They appear to give rise to most of the suffering. They are usually situated in the fat calves,

and abdominal walls.
but they may extend over
the whole body. From the
prominence of this symptom
will appear the significance
of the term spasmodic cholera.
The muscular strength is
retained in a remarkable
degree. Patients will often
get up, if allowed, and
walk about even a few mo-
ments before death. Most of the
secretory functions are nearly if
not quite suspended. The bile
is not secreted. The urine is
diminished and at length suppressed.
The lachrymal function is suspended

In nursing women however the lactiferous secretion continues perspiration also continues, but the menstrual discharge is much diminished. The skin is cold and clammy, the coldness of the surface being very much like that of a cadaver. The patient is ignorant of this however for he generally complains of a sense of heat and wants to be uncovered.

The temperature of the body is generally diminished the thermometer when placed in the axilla shows a diminution of several degrees below 98° and it

may fall even below 90°. The skin is wrinkled and shrivelled. The tongue cool to the touch. The patient has a constant longing for cold drinks, and ice-water or ice is taken with the greatest avidity.

The whole aspect of the patient in the collapsed stage, is highly characteristic. The features are contracted, the eyes sunken, and the whole body so shrivelled and dried up, the patient seems to have grown suddenly old, and is sometimes, so much changed as to be scarcely recognizable by families or friends.

Nearly all the foregoing symptoms are present in cases in which the disease is not speedily arrested. We are accustomed in speaking of the condition of the

patient is seen before in algid collapse,
and to express the different degrees of
the collapsed state, by semi-collapsed or
completely collapsed. The collapse is com-
plete when the pulse at the wrist is
extinct, surface cold, etc.
It may ensue with more or less rapidity.
It occurs almost invariably in fatal
cases. The mode of dying is by asthenia.
Sometimes the stage of collapse does
not occur, the patient dying by apnoea.

After the patient emerges from the
state of collapse, he does not at-once
pass into convalescence. There follows
an intermediate stage, called the stage
of reaction. This stage is attended by
more or less febrile movement.

Diarrhoea frequently continues, the dejections being green and gelatinous. Dysentery is sometimes a sequel and sometimes constipation. Vomiting is a troublesome symptom, the vomited matter being either green or yellow. The secretion of urine returns, and is apt to be albuminous. This stage is attended with considerable danger, the patient becoming worn out with continual vomiting or diarrhoea. Pneumonia is sometimes developed. Of the cases in which the stage of reaction takes place, a pretty large proportion have a fatal termination; and even when recovery does take place, the powers of the system are impaired for a long time. Occasionally persons

emerge from the collapsed state and pass almost immediately into convalescence without the symptoms commonly attending the stage of reaction. Gastric and intestinal epithelium may be quickly reproduced.

Pathological Characters.

Transudation is the first appreciable important event in the clinical history of this disease. The contents of the intestines, as found after death, consist of water holding in solution albumen and albuminose, together with several saline constituents, chloride of sodium being the most abundant. They also contain an abundance of desquamated epithelium. The blood contains a relative

excess of blood-globules; owing to the loss of water, the saline elements are greatly diminished in the serum of the blood, having escaped with the transuded water. The salts of potassa and the phosphates however remain, and the albumin is relatively greater in proportion than in health, although actually diminished. Urea is found more or less in the blood.

This disease presents many striking phenomena, most of which are plainly attributable to blood lesions. Owing to the feeble circulation of the blood, the changes incident to respiration take place very imperfectly, and there arises the

faintness, and loss of pulse; loss of temperature, thirst, and other attending symptoms. The transudation however, which is the first appreciable event, involves and underlies and hitherto unknown pathological condition. And with this condition we must be acquainted, before we can fully understand the pathological character of the disease. The primary essential change is probably in the blood, and in consequence of this change, the water of the blood, containing saline constituents, transudes into the alimentary canal. Prof Johnston attributes the loss of temperature,

cyanosis, and other significant phenomena, to obstruction of the pulmonary circulation. He states that the lungs after death are notably free from blood. This can only be true in exceptional cases, the lungs frequently being found congested. He gives as the cause of the pulmonary obstruction, spasm of the vessels of the lungs; this being the direct effect of the poison in the blood. These views of course are purely conjectural.

The exfoliation of the gastric and intestinal epithelium, is by some pathologists considered to be the essential pathological condition, preceding

and causing the transudation.

Causes:- For the production of epidemic cholera a special cause is undoubtedly necessary. This is a logical inference, deduced from the character of the disease, its distinctive features, and great uniformity as regards symptomatic phenomena in all places and periods, although the source and nature of the special cause is unknown. In considering this subject, the question arises: Is this special cause a contagious or infectious material? To account for the diffusion of this disease on the supposition of communicability, what the exact mode, and certain facts seem to favor this supposition - The epidemic

in its migrations follows routes most fa-
vorable; it prevails chiefly in great thorough-
fares, and large cities; generally the first
case in a new place is an imported one;
the different members of a household
are successively attacked, etc., But the
great majority of those who have surveyed
the facts on all sides, and impartially
weighed the evidence for and against
contagion or infection, have arrived at
the following conclusion; viz.- That the
spread of the disease is not due to its being
communicated from those affected, to others.
Some of the considerations on which this
conclusion rests are as follows:—
1. It does not appear that a larger portion
of those who are brought into close prox-

imity to cholera patients, become affected, than of those who are not thus exposed.

4. The epidemic is diffused too rapidly to be propagated solely by Contagion or Infection.

3. Efforts to produce the disease experimentally, by the greatest amount of exposure, by inoculation, tasting the excretions etc., have failed.

Dr. Snow believes cholera, pathologically, to be a disease exclusively of the alimentary canal; that the production of this disease is always attributable to the introduction of a specific virus, into the canal. That the disease being thus produced, the excreta from the alimentary

canal, contain the special virus, and it is exclusively by means of this virus that the disease is propagated. Dr Snow accounts for the diffusion of the disease by supposing that the virus existing in the excreta of cholera patients are especially liable to be contained in the water which is drunk, and that it may be contained in the air, and thus get into the mouth or nostrils and thence into the stomach. — Dr Townsend in his report on the Cholera Epidemic of 1868, in the Central Provinces, arrives at the following conclusions:—

1. That for the production of cholera two conditions are necessary — the presence of a special contagion, and a peculiar susceptibility to its influence

fluence on the part of the persons
to whom the contagium is adhesive.
2. That with respect to the origin
of the epidemic of 1669, the evidence
is in favor of its being brought
from elsewhere, rather than that it
was generated in the localities where
the disease first broke out.
3. That the subsequent diffusion
of the disease was effected solely by
means of human intercourse.
4. That with respect to the general
population of the country, the
imbibition of water containing ani-
mal organic impurities, is the
most common means by which
personal susceptibility to the effects

of the contagion is increased.

7. That a high temperature and extreme dryness are no obstacles to the diffusion of the contagion.

The general doctrine held at the present time, seems to be that of a special cause; that this special cause is a miasm, the source and nature of which are not known; that this miasm travels through the atmosphere or is carried in clothing and other materials and substances, giving rise to the disease either by its co-operation of other causes, acting upon those who are attacked, or by finding in certain situations, circumstances

favorable for its development.

According to this doctrine, the special cause being neither of the nature of a virus, nor of a miasm generated within the bodies of cholera patients, the disease is neither contagious nor infectious.

Now if we reject the doctrine which attributes the causation of cholera to a contagious or infectious material, the nature and source of the special cause of this disease are undetermined — The doctrine that this as well as numerous other diseases is caused by the introduction into the body of certain cryptogamic or infusorial germs

has hitherto found many able advocates. This doctrine has recently been revived, and zealous pathologists in different countries are now engaged in researches relating to it. The facts as yet do not warrant either the adoption or rejection of the doctrine as applied to Cholera and other diseases - Auxiliary causes appear to be essential to the efficiency of the special cause. Epidemics are confined chiefly to cities and large towns. They prevail mostly in districts in which hygienic conditions are most unfavorable; in filthy streets and among the poorer classes in over crowded dwellings - In the

persons are more liable to be attacked than the robust. As regards age, no period of life is exempt. Valleix after an analysis of 18,400 cases, states that the largest proportion of fatal cases is among persons advanced in life. Excluding old persons, the mortality is greatest after adult age; next in early infancy, and last in childhood and youth.

Diagnosis. There is scarcely any disease in which the diagnostic features are so strongly marked. During its prevalence there is scarcely any difficulty in recognizing it, when fully developed. It is important to recognize it has advanced sufficiently to present its most striking characters. The diagnosis must be based on the intestinal evacuations. A patient to be considered as attacked with cholera, as stools, rice-water or characteristic choleraic stools become abundant. The diagnosis in such cases must be based upon the latter. — Cholera must be discriminated from simple diarrhoea which during the epidemic

cedes it: and frequently affect persons without eventuating in Cholera.

This premonitory and frequently wide-spread diarrhoea is supposed to proceed from the epidemic, but is not to be considered as cholera when the cholera discharges and other characteristic symptoms are wanting. The apparent success of some physicians, or the success of certain methods of treatment doubtless depends on cases of simple diarrhoea being reckoned as cases of cholera.

Cholera is one of the most insidious of diseases in its approach. Except a slight diarrhoea it gives no warning of the attack. Physicians should be careful during the pre-

alence of an epidemic of cholera to watch closely the evacuations with reference to the diagnosis. Physicians are frequently called during an epidemic, to see persons who laboring under intense mental excitement imagine they are about to be attacked, when no symptoms of the disease are present. These have been called cases of cholerophobia.

Prognosis:- The mortality in this disease is very great; being from one third to one half. When developed in hospital wards, the majority of cases prove fatal. The mortality is much less in private practice.

The disease may be arrested in most cases if seen immediately after an attack, before serious lesions have occurred. But the prognosis is much more unfavorable if the disease have advanced to the stage of collapse. The cases in which recovery takes place after reaction from the collapsed state occurs. [illegible]

Death is usually the result of the asphyxia. Accumulation of liquid in the air tubes very rarely takes place.

Treatment: There are but few articles in the materia medica which have not been tried, even including antimony and drastic purgatives. Much injury has doubtless been done by over medication, under the idea that treatment as regards activity must be proportionate to the amount of danger from a disease. And on the other hand, not a few of the remedies that have been tried exert little or no good. There is no known specific, and yet we must believe that the disease is frequently controlled by judicious treatment. The treatment is to be considered as applicable to the three different stages.

viz. before collapse, during
collapsed stage, and after reaction.
In the first stage, the paramount
object is the arrest of the inter-
nal effusion. If this effusion is promptly
arrested before the blood an circulation
have become seriously affected, the
patient is usually safe. In effecting
this object the remedy on which
most dependence is to be placed is
opium. Some form of opium must be
given (promptly and) in sufficient
doses to effect the object. In
choosing the form of opium, to
given reference must be had to
promptness of action, and the
probability of its being retained

Opium in substance is unsuitable owing to the slowness of its absorption. In endeavouring to effect the object of treatment in this stage, moments are precious, for there is always danger that the patient may fall into the collapsed state. The hypodermic injection of a salt of Morphia, in solution, owing to the certainty and rapidity of its absorption, possesses great advantages over any other form of administration now known. If this method is not at our command, we may give a salt of morphia placed dry upon the tongue. One fourth of a grain being generally the dose for an adult.

Keeping the patients quietly in bed aids greatly in retaining the bowels in limine and is none the less important in the premonitory symptoms of cholera termed Cholerine.

A physician should if possible remain with the patient; and if the first dose of morphia be rejected a second should be immediately given. The doses are to be repeated at intervals of from one half to three fourths of an hour until the rejections and borborygmi cease. The practical point in this stage is to administer the remedy freely and promptly, remembering that a delay of half

an hour is often fatal. It is best not to use other remedies, lest by increasing the bulk of the doses they be more likely to be rejected. The patient should be allowed but a very small quantity of water. Small pieces of ice may be given occasionally. This plan of treatment is frequently successful in arresting the disease, and when arrested before proceeding to the stage of collapse, the recovery is generally speedy. Nothing more is needed for the cure but quiet and rest, with perhaps a tonic. The bowels should remain constipated for a few days, and then opened by a slight laxative, or simple enemas, if they do not move spon[illegible]

It is not to be expected that this plan of treatment will be successful. It is not available when vomiting is the frequent symptom. The remedy is not retained long enough to exert its effect; it will also fail when the state of collapse occurs before a remedial effect can be obtained. In this stage of collapse the above plan of treatment may prove not only ineffectual but injurious. In this stage the symptoms are due chiefly to the damage the blood has sustained. Opiates may be given but great care should be observed not to induce narcotism. Astringent

remedies, such as tannic acid, the acetate of lead, etc, may be given. If however they provoke vomiting, they do more harm than good. Hydrocyanic acid, creasote and chloroform may be given to allay vomiting, as also mustard over the stomach, turpentine &c. After collapse has taken place, little can be done with much hope of success, in the majority of cases. Even after vomiting and purging cease, recovery may not follow. Recovery however takes place in a certain proportion of cases. The main object of treatment in this stage is to arrest the vomiting and purging, and to aid the efforts of nature in restoring the circulation. For this purpose

application of [illegible] may be made.
by means of warm blankets or bottles
of hot water placed near the body.
The surface may be stimulated with
sinapisms or tincture of capsicum.
Diffusible stimulants may be given,
always remembering the evils of
inducing vomiting. Small lumps of ice
may be freely given. The only ob-
jection to the free ingestion of water
being the risk of provoking vomiting.
If the patient emerge from the collapsed
state nothing is needed but to support
the system by stimulants and ali-
mentation; restore the functions of
the kidneys; restrain by astringents
diarrhoea, strengthen by tonics, and

ment the various symptoms
as they may arise &
appropriate remedies.

AN

Inaugural Dissertation

ON

Dysentery.

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

David M. Devilbiss

Of

Maryland

Session of 1871 1872

Dysentery. Colitis.

Dysentery is an inflammation of the mucous membrane of the Colon and Rectum; characterized by small mucous or bloody evacuations; griping pains in the abdomen, straining at stool and tenesmus. Dysentery may be acute or chronic - simple or complicated. When associated with disease of some other organ its name is usually modified by that of the particular disease with which it is found to exist; as Bilious. Typhus; or it may be associated with some other morbid state of the system, from previous exposure to depressing causes; as in the adynamic type of the disease, or when unusually prevalent it is

said to be epidemic. Simple Dysentery.
This may be a very mild affection, frequently passing off in a few days, with little constitutional disturbance; but when associated with a diseased condition of some other organ, it often presents a variety and combination of symptoms, surpassed in gravity, by no disease to which the human organism is subject. The simple form of the disease may occur without premonitory symptoms, recognisable by either patient or physician. But I am persuaded that this, like most inflammations affecting mucous membranes, is always preceded by more or less irritation; as general uneasiness, lassitude; impaired appetite, griping

pains in the abdomen, and irregular bowels. These symptoms usually succeed, by an appreciable interval, those characteristic of inflammation or dysentery proper. They are often so mild in character, or of such short duration, as to have been entirely overlooked in some cases, when the disease is said to have occurred without premonitory symptoms.

Symptoms of Inflammation or Dysentery Proper. - These are usually denominated local, and general or constitutional. The local symptoms usually first make their appearance. Sometimes however, the local and febrile phenomena commence simultaneously. The patient being attacked

with a child almost at the moment that
he begins to complain of pain and tenesmus,
local symptoms. These are most char-
acteristic of the disease, in the begin-
ning, there are usually acute pains
in the abdomen - technically called
tormina, irregular in position, and
frequently followed by an evacuation;
with little or no relief to the patient.
As the disease advances, these pains
seem to concentrate in the vicinity
of the colon and rectum, the evacuations
become more frequent, give less relief,
and are attended with much straining
and tenesmus. Notwithstanding the
frequently returning inclination to
evacuate the bowels, the patient is

unable to evacuate more than a little bloody mucous. Soon a sense of weight, and burning, is experienced in rectum. The evacuations give rise to a cutting pain in the anus, which leads the patient to dread them return, and resist the inclination as long as possible. The number of evacuations, in twenty four hours, are seldom less than sixty, or more than thirty. They usually consist of an admixture of mucous, and blood. Though in some cases, we find shreds of false membrane, vitiated bile, with little balls of coagulated matter occasionally intermingled; and in a few instances, little balls of hardened feces, called scybala, are discharged. At first

the discharges have very little odor; but they soon acquire a very peculiar, disagreeable odor, quite distinct from the feculent, and most characteristic of the disease. There is usually more or less tenderness or pain over the abdomen. So this symptom alone or of the first order to the exist of the inflammation, it should never be overlooked; and when tenderness upon pressure is observed a cross the epigastrium, and along the right side of the abdomen; there is reason to apprehend that the inflammation has reached the transverse, and ascending colon, involving the whole of the organ in question. From the close proximity of the bladder to the seat of the disease,

this organ is frequently affected; and the irritation extending throughout the urethra, we have in addition to the local symptoms above named, frequent and difficult micturition; with a sense of heat extending along the back of the urethra.

General Symptoms.—

There is always fever, except in very mild cases, involving but a small extent of surface. The pulse is accelerated, and in the beginning, usually full and forcible. The skin warm and dry. The urine scanty, and high colored. The tongue moist, and covered with a whitish fur. Sometimes from the previously weakened condition of the patient

system, or from the severity of the attack, the vital energies temporarily flag. While this condition exists, we have a feble and thread like pulse, an indiscribable feeling of sinking in the epigastrium. A cold and damp skin - haggard expression of countenance, and frequently nausea and vomiting. Fortunately, in the majority of instances, these symptoms speedily abate so soon as the irritating substances are passed; but in a few cases, these symptoms continue, the evacuations and vomiting become excessive, the abdomen tumid, and soon death closes the painful scene.

The Duration of Simple Dysentery.-

A case of this disease is seldom longer

than a week or ten days. Should the symptoms not begin to abate in this time, they are apt to become increased in severity. The patient now becomes weak and exhausted. The tongue becomes dry assuming a brownish hue, or throws off its fur, and becomes red, smooth, and sometimes fissured. The pulse more feeble, frequent, and irregular. The stools are frequent and offensive. The skin is cold and damp. The abdomen tumid, swollen, and sometimes tympanites. The stools often consist of a kind of bloody serum. Even after the worst of these symptoms the patient may recover; though convalescence is slow and tedious, and the case not unfrequently runs

into the chronic form of the disease.

Bilious - Dysentery.. This is simply inflammation of the mucous-membrane of the colon and rectum, supervening upon, or coexisting with that state of the general system usually denominated bilious. This form of dysentery is most frequent in tropical climates; where the inhabitants are continually exposed to such influences, as contribute to the development of this morbid state. With few exceptions the symptoms of this disease are identical with those of the uncomplicated affection. They are generally more severe in character, with a yellow hue of the skin, tongue, eyes and urine, and with more vomiting, fever, and delirium.

Typhous Dysentery. In this type of the disease, the inflammation proper to dysentery, is associated with a distinct febrile affection; which may precede, coexist with, or supervene upon the dysenteric symptoms. It is unnecessary here to discriminate further, as the diagnosis of this complication is at once obvious, and the symptoms and treatment must necessarily vary with the pathological condition in each individual case.

Adynamic - Dysentery. This little bilious, and typhus, is no distinct affection being merely another type of the same disease; in many of its symptoms it closely simulates typhus. It is most frequent in tropical climates, more particularly

in cases where the patient has been previously exposed to such depressing influences as tend to weaken the system, and vitiate the blood - as continued exposure to putrid exhalations, insufficient food clothing &c. We find this type of the disease most prevalent in forts, ships, or prisons, when numbers of persons are crowded together in poorly ventilated ~~ap~~ partments without due attention to clean liness. Under such circumstances; along with the symptoms of the simple affection in a severe degree, are added those of a typhoid or malignant scorbutic disease: such as nausea and vomiting, great thirst, a frequent feeble and irregular pulse. a foul brown or black

dry tongue, sordes about the teeth, a dusky skin. sometimes marked with hemorrhage; dark brown or black stools, great prostration, even from the beginning, with a set of symptoms characteristic of nervous depression; as anxiety, depression of spirits, headache, low delirium, subsultus tendinum, and stupor.

Epidemic - Dysentery. This like other diseases occurring epidemically, assumes the peculiar character of the prevailing epidemic influence. Any of the forms of the disease may, partake of this influence. The only peculiarity of dysentery in epidemics seems to be, that in such cases, there is apt to be a malignancy not usually known in

sporadic cases of the disease. The cause of this malignancy, as well as of epidemics of dysentery, is perhaps owing to some prevailing atmospheric influence not well understood; by which the blood is vitiated, and so rendered unfit for the due nutrition of the system. We can easily conceive that such influences might be brought to bear upon the sympathetic nervous system, presiding as it does over the circulation, interfering with the normal circulation of the blood in the capillaries, more particularly of the liver. This would necessarily lead to engorgement of the portal circulation, and congestion of the mucous membrane of the bowels. Under such circumstances, the ordinary causes of

inflammation would be more violent, and the inflammation when once established would be more obstinate in consequence of the underlying cause.

Prognosis. This should necessarily be influenced by the severity of the symptoms, the previous condition of the patient system, and the extent of the inflammation. Epidemic influences will also greatly modify the prognosis of this disease. In making our prognosis we must also take into account the hygienic influences with which the patient is surrounded. When a case continues without abatement beyond the fourteenth or fifteenth day. This in and of itself, adds considerably to the gravity of the

prognosis, most of importance is the extent of the inflammation. When the whole extent of the large intestines are involved, the prognosis is always grave. In cases of simple uncomplicated dysentery, occurring sporadically, the prognosis is always favorable. When dysentery is about to terminate favorably, the evacuations become more copious, less frequent, and more feculent in character, the pains usually gradually subside, the tenderness upon pressure over the abdomen diminishes. And at length nothing but a diarrhoea remains, which soon ceases. On the other hand, a very sudden cessation of the tormina and tenesmus, with hippocratic, coldness of the extremities, with a cold and clammy

state of the skin, livid expression of countenance, a very feeble, frequent, and irregular pulse, hiccough, involuntary stools, low delirium, and sullen taciturnity; are very unfavorable symptoms, and together usually portray speedy dissolution. Patients not unfrequently die from the combined influence of prostration and copious discharge. In this as in other diseases affecting the constitution at large, the physician should not be too hasty in giving his opinion concerning the termination. I have always looked upon modification as being pre-eminently applicable to these cases.

Anatomical Characters. The mucous membrane of the colon and rectum always

give evidences of inflammation in cases of fatal termination. Sometimes the inflammation is general, affecting the whole membrane equally, while in other cases it manifests a preference for the mucous follicles, or solitary glands, as shown by the greater prominence of these structures. The membrane is reddened, thickened, and frequently ulcerated. Ulcers are more frequently found in dysentery than in any other inflammation of the alimentary canal, with the exception of typhus fever and small pox. They are usually small, ~~and~~ regular, and circular in outline. Though we may find them large and irregular, from the coalescence of the smaller. They have usually an abrupt edge, and

are covered with a concentric undulation giving the appearance of a slough.
The mucous membrane is found more or less coated with coagulable lymph. In places where this lymph has been detached the membrane is red, and swollen, though no loss of continuity usually exists.
Occasionally real gangrenous sloughs are found, and in a few cases, large portions of mucous membrane have been removed by ulceration, or mortification.
Not unfrequently, the inflammation extends beyond the mucous membrane, and sometimes involves the whole parietes of the bowel. Though perforation is exceedingly rare.
In protracted cases, the mesenteric glands are usually found enlarged, and softened,

though seldom in a state of suppuration.
In a few cases, the inflammation is
found to have existed throughout the whole
intestinal canal, and even to the stomach.
The liver is frequently found diseased;
containing abscesses, more particularly in
the bilious dysentery of tropical climates.
Other lesions are sometimes found, but are
not of such constant occurrence, as to require
mention here.
Causes. - Cold is an acknowledged pre-
disposing cause of dysentery. Sudden change
of temperature; as exposure heat during the
day, followed by cold damp night.
During the day, from the exposure heat,
we have general relaxation of tissue.
This favors materially surface action

The body is found in this relaxed condition to the cold damp air of night, soon becomes chilled. This diminishes surface action, and leads to congestion of the internal organs. The eliminative organs are thus called upon to perform additional duty; and at a time, when from the relaxed condition of the organism, they are in the worst possible condition to resist disease. Age seems to exert some influence, Though dysentery seems to manifest a preference for adult males, under thirty five years of age, The fair sex are not unfrequently attacked; and no age can be said to be entirely exempt from this disease Treatment.- If possible ascertain and remove the predisposing or exciting cause.

this unfortunately is often impossible, and we must confine ourselves with assisting nature in her efforts to overcome a disease, the essential nature of which we know nothing, nor can we know, until we are able to define that vital action upon which life depends. Next of importance I conceive to be the removal of all products, which if retained would react hurtfully upon the system. For this purpose, a cathartic, in the very beginning, is usually applicable. The cathartic given should depend upon the condition of the patient, and not upon the popular favor of the remedy, always keeping in view, that restoration of function is to repair. Hence those remedies which are sufficiently active to accomplish

an Emetic without adding additional irritation, should be employed. To depress excitability of tissue, and secure repose of function: Opium and its preparations are the most effective. This may be given alone, or should preferably, in the combination known as Dovers Powder. This increases surface action, and depresses the peristaltic action of the bowels. In simple dysentery the simple treatment will usually suffice. In bilious forms of the disease Mercury, notwithstanding its devastating effects upon the system, is, when cautiously employed, usually productive of great good. Stimulation should be resorted to in cases with great prostration. I am decidedly in favor of small doses frequently repeated, and carefully watched. When employed

When employed in this way we derive all the effects with lep risk of doing our patient harm. Local applications such as injections of starch and laudanum.
The patient should remain as quiet as possible in a recumbent posture.
Diet should be unstimulating but nutritious.

AN

Inaugural Dissertation

ON

Materia Medica

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Jos. M. Worthington

Of

Baltimore

Session of *1871-72* 18*72*

Materia Medica

In the many divisions of Medical Science which have engaged the attention and invited the study of members of our profession, we think few can successfully rest the one chosen for our subject.

It had its origin from the time man first erred and in punishment of such error the primal curse was uttered. "It shall bruise thy head and thou shalt bruise his heel" was the sentence, eternal enmity was declared

[illegible] to their
suffering and distress.

Before the days of refinement and civilization the wants of man were few and simple; his ailments had their remedy in some root or flo or fruit. As time rolled on, his wants, real and imaginary increased and with them [illegible] ails.

Sickness and disease were his constant enemies and he had to seek for means with which to combat them.

The earth, the sea, the air,

[illegible] is made to yield to [illegible]
and place weapons in the
hands of Medicine to be used
in his defence.

Sometimes a "lucky accident"
[illegible]
[illegible]
[illegible]
[illegible]
common facts such as
constantly occur, the [illegible]
[illegible]
[illegible]
and lines, were found when
[illegible] produced [illegible]
system [illegible]

such as catharsis, dinusis
diapnoresis, dinusis, emesis &c.

These effects were carefully
noted and the substances
producing them were subject
to most thorough investigation.

If found to yield a severe
[illegible] [illegible] [illegible] [illegible]
were sought for, and so gradually
the Herb Doctor's store of cures
accumulated as did likewise
his experience and ultimately
his knowledge.

Finally from necessity,
when originating it seems
difficult & absolutely to

its acquirement. We actually "can call spirits from the vasty deep" but make them come and do our building when we call.

Chlorine, Iodine and Bromine with their almost innumerable applications in disease answer us.

Chlorine will stay the ravages of the pestilence which seems to revel in an atmosphere of decomposing organic matter.

Iodine modifies and was some of the most disastrous

affections come unto [illegible].

Bromine can relieve the nervous paroxysms of the peopless child, the wildest ravings of the drunkard, or can lull to calm repose in its most excited condition, the mind of the statesman, soldier or scholar.

We penetrate the dreary solitude of the Carolina Pines and from them obtain, Tar and Turpentine disagreeable to sight, to smell, to touch, to taste but nevertheless abundantly useful when

properly manipulated by scientific hands.

We visit China and in the midst of the "countless millions" we find the beautiful Camphor tree flourishing; the radicle of its gum, camphene is identical in composition with one of the products of our own "Pines". We have heard it mentioned as a singular coincidence that Terpentine and Camphor would answer similar indications in certain

diseases. We see no occasion for surprise but in the contrary would anticipate such result knowing its composition.

South America with her almost impenetrable forests, volcanoes, indians, reptiles, and insects, severely inimicable to scientific research, awards us however with the bin-hona-tree which furnishes us with so many invaluable agencies to relieve and cure those fevers with which "Vistula" even the god of Rome "did shake".

Africa, from the country

of the Hottentots on the South
who gather our Buchu, to
the shores of Mediterranean
on the North, whose more
enlightened races give us
our Senna, furnishes
much material for our study.

Opinion grown under the
shadow of the Thebian pyramids
can in our hands, "indicamus
at least" produce dynasties
as old and rich as those of
the kings, now sleeping in
their crypts, whose bodies
were embalmed in Myrrh
Aloes and Cassia and might

have remained until summoned
by the "King of Kings"

For, to show the vanity
of human calculations, the
pyramids neither time, nor
tempest, nor season, have
as yet removed; the only
remains of those who
placed them there are
carried to the remotest
ends of the earth and
exhibited in museums
to the vulgar gaze.

We having now pilgrimaged
to Mataria and to [illegible]
and on the opposite plain

from,

"The Arabian trees
their medicinal gum."

If we read the page Nature
has written for us, we must
be listless indeed not to
admire and love the useful
matter it contains.

Meadow saffron in its
unostentatious beauty
ministers to the wants
of the Gouty and Rheumatic.

Foxglove in Pneumonia and
Pleurisy has uses far
surpassing even its beauty.

Monkshood Yellow Jasmine

Mayapple Christmas rose and a host of others afford abundant compensation and interest to those who love to wander through the verdant fields into these.

The surface, not supplying all our wants, we dig into the innermost recesses of the earth. Iron, copper, lead and zinc with the numberless minerals presented to our view. Mercury from the mines of Almaden in Spain is capable of being

consequences of crime, common to king and peasant, which spares neither age nor sex.

Cochineal from Mexico in combination with other remedies, produces psychical effects, rivalling in its results most potent remedies.

Spanish flies from Southern Europe when properly used can reclaim from the hands of Death the victim in his grasp.

Many are the consequences of human error, equally

numerous as the agencies which the God who gave us life has supplied within certain limits to prolong it. The forests of South America, the jungles of India the deserts of Arabia and of Africa the plains of Siberia the highlands of Tartary nay even the tops of the Himalaya's furnish as ritnes of his Beneficence and abundant material upon which to concentrate the highest powers we have of thought and study.

J. M. Worthington

Jan. 30/72

An Inaugural Dissertation
On
Intermittent Fever.
Submitted to the Examination
of the
Provost, Regents and Faculty
of the
Physic,
of the
University of Maryland,
For the Degree of
Doctor of Medicine,
By
Enoch George
of
Maryland.
Session of 1871-72.

Intermittent Fever.

Intermittent-fever is a disease Characterized by febrile paroxysms, occuring at States intervals, and by absence of fever between the paroxysms. The three most Common Varieties are the Quotidian Tertian and Quartin.

The Quotidian is that form in which the fit comes on every day and last from ten to twelv hours.

The Tertian, in which the fit comes on alternate days generally about noon and lasts until evening.

The Quartin which comes once in three days, usually in the afternoon. It has the longest cold fit, but the shortest paroxysm altogether. Sometimes

There are double quotidians, having
two paroxysms every day.
Double Tertians having a paroxysm
every day, but at different hours.
Sometimes there are two paroxysms
one day, and none on the next. This is
called a duplicated or double Tertian.
There are many other forms of paroxysms but they are of so infrequent
occurrence, as not to merit an attention
Anatomical Characters, Browning of
the liver and brain in which, in
Certain Cases is found after death from
from remittents and from pernicious ~~fever~~
remittent fever may be supposed to exist in more or less of the Cases of

simple intermittent fever, in which the disease ended in recovery, aside from this there are no known lesions which are characteristic of intermittent fever.

Clinical History. The clinical history will embrace an account, first, of the fever-paroxysms, and, second, of the intermissions. In the majority of cases the attack is sudden. In a certain number of cases, however, there are premonitions for a variable period. The premonitions are not very distinctive of this disease, consisting of pains in the head, yawnings indispositions to exertion loss of appetite, and gen-

eral malaise. Although not very definite, they sometimes suffice to lead patients who have been often affected with intermittent fever to anticipate an impending attack. I can verify this from my own Experience, and the Experience of many more who inhabit the same locality that I do.

A Paroxysm when complete, consists of three distinct periods or Stages viz. The Cold, the hot, and the Sweating Stage.

The first or Cold Stage Commences with a feeling of Chilliness, begining in the loins, and extending thence

over back and limbs. In some cases the chill is severe while in others it is hardly perceptible. I have experienced both kinds and can remember distinctly the last chill I ever had it lasted about two hours, but did not prevent me from attending to my regular duties. I have seen persons with a chill when it seemed to me that they would shake themselves out of bed, so severe was it. Notwithstanding the sensation of coldness which the patient experiences, and the feeling of coldness when the hand is placed on certain parts, the thermometer placed in the axilla shows

an increase of temperature of the body. The thermometer, however, applied to the Extremities shows a decrease of temperature below that of health. The pulse which is usually accelerated, is small and feeble, the Countenance has an Expression of anxiety, the probabis and face are frequently livid and lividity is often marked at the roots of the nails. The Circulation is sometimes Entirely suspended in the fingers, and do not bleed if wounded, other symtoms are, mental irritability pain in head and limbs and a feeling of oppression referred to the praecordia. The dura-

tion of this stage varies, from a few minutes to one or two hours. I have seen some persons last for one hour, and in myself as before stated can remember distinctly of a chill lasting two hours and dont think I would remember saying longer, but the average duration is from a half to three fourths of an hour. The passing from this stage into the hot stage is sometimes abrupt, but generally gradual flushings of heat are felt, rigors cease, the coldness as it were melts away, fever then comes on and the cold stage is ended. Then the patient who has been wrapped in as many blankets as possible begins to

throw them off. I think there is nothing
as expressive of his extremes then the cold
stage and hot stages of intermittent fever.
Sometimes the cold stage is wanting. The
paroxysms beginning with the hot stage.
Sometimes a stage of extreme nervous ness take
the place of the cold stage. Gastralgia
and gastric irritability as denoted by
vomiting sometimes occurs instead of cold
stage, also drowsiness and stupor. In young
Children convulsions occur in the cold
stage.

The hot stage. This stage is Characterized
by more or less febrile movements
The skin becomes hot and those miserable
pains rise The limbs disappear, which is

a great source of delight to the fever sufferer
The skin becomes hot the pulse is accelerated
and full or bounding. The face is flushed but
the head still continues to ache although the aching
in the limbs disappear. The thermometer placed
placed in the axilla indicates an increase
of temperature, usually 105 to 106 Fahr. The patient
becomes thirsty in fact this is one of the most
prominent symptoms. The duration of the fever
varies in different persons. I have seen it last
from three to ten hours. I cannot remember the dura-
tion in my own person.
The Sweating Stage. Perspiration appears first
on the face and afterwards on the trunk and
extremities, the hot burning fever gradually dis-
appears and the patient at last is able to enjoy

a pleasant and refreshing sleep. The thirst headache & restlessness also disappear in this stage. The thermometer indicates a rapid deferrescence. the heat falling to the normal standard. With this stage the paroxysm Ends. As regards the amount of sweating different cases differ, In some persons you will find the most profuse sweating, while in others it is slight. The duration of this stage varies like the others generally lasting from two to three hours. The sweating is an evidence that the febrile movement is about to cease. That it is the means of bringing the paroxysm to a close is by no means certain, it is the sign of approaching intermission, and it may be an effect rather than a cause of the decrease of febrile movements. During and succeeding the par-

oxyuri. the urates Uric acid, and the Chlorides in the Urine are increased. Sometimes we have Albumen, and occasionally haematuria exists. I described the principal forms of this fever in the beginning of my Thesis. I have only to add here that the Quotidian, Tertian, and Quartan are the forms, most often met with in my Country. The Tertian is the most often met with in my immediate locality. According to this the relative frequency of Quotidian and Tertian cases either may predominate at particular seasons. In the same locality the majority of Cases are, at one season, of the Tertian, and at another season, of the

Quotidian type. The double Tertian, double Quotidian and double Quartin are sometimes met with, but with the exception of double Tertian are extremely rare. The time of the occurance of the paroxysms is very varied. They may occur at any time during the day, and very often during the night. I remember the most violent Chill I ever had occured at night I was awaken from my sleep by its Attack I shook for one half hour. The hot stage Came on which lasted but a short time the sweating stage then came on and I fell into a pleasent sleep and awoke in the morning and was able to attend to my accustomed duties. Flint says that in a large majority of the Cases of the Quotidian

and tertian type, the paroxysm occurs before ~~[illegible]~~ but that those of the quartin ~~are~~ as likely to occur after as before the middle of the day. In Infants the type is almost uniformally quotidian. As a general rule, the succession paroxysm occurs at the same hour, but this is not always the rule. It may come on earlier one day and later the next. This variation is said to be a sign of the approaching end of the disease. During the intermission there is much difference in different cases as to their ailments, some suffer a great deal more than others, thus some may have a very slight debility, with a good appetite and good digestion, while in others

we will find great debility and prostration with appetite gone and digestion greatly impaired and many other disturbances. The Enlargement of the Spleen is an occasional complication, I have seen more since I have been a student at the Infirmary than I ever saw before, in fact I do not remember of ever seeing a case before I came here, if I do I do not know what it was, It occurs sometimes when the disease has only been of short duration, and according to Hirsh does not depend on the length of time the patient is affected with the Malarious poison. Its pathology and connection with this disease is not understood It continues sometime after the poison has been

cured. I have seen a number of cases in the Hospitals who have been affected with this disease for a long time. Anemia is incident to this disease especially if it has been of long duration The patient wears a sallow look they have a yellow appearance with more or less oedema, this is called the Malarious Cachexia.

The duration of Intermittent fever is indefinite A person may have but one paroxysm, or it may last for six months and sometimes longer. You can notice one striking phenomenon in this disease as regards its periodicity A person may have Chills and fever and do he thinks be cured and several

days from his last Chill he will have another and so on for ever year his years I have noticed in myself that I am subject to Chills & fevers every other year I have not had this for several years back..

Causes, The true Cause of Intermittent Fever is not known, there are many theories as to its origen but as yet none are cleffinitely settled, The most general, and it seems to be the most reasonable, is that it is due to a morbific agent Commonly Called Malaria, The production of the Specific Cause was attributed to Vegetable decomposition in marshy localities and called much Miasma in 1717 by Lancisci, an Italian writer. This

doctrine, and name has since been generally adopted. It affects by preference, low and moist localities. This I can verify the Village in which I reside, is situated near the river and between the Village and river. we have a marsh, where Vegetable decomposition is constantly going on, The inhabitants of our Village suffer every year with Intermittent Fever, and you will rarely find no entirely free of it at any time during the year, but more especially during Spring and Autumn, It may develope it self in localities where it was never known before. by the turning up of new soil for foundations for houses This you will find in the western part of Balto. A Gentleman told me

last Spring living in the Western portion of the City that since so much new soil had been turned for building purposes, that they had suffered very much from Chills and Fevers, something that they had never known before. There are a great many more reasons that could be brought forward to substantiate this theory but as none of them are definitely settled I think it is useless to burden the time of our worthy Pres. & Brethren with them. There is another theory that has occupied the mind of the profession for sometime I refer to Dr Salisbery of Ohio. but as the like the others not being accepted by the profession I thought it useless to burden the time of the Pres. with that

which he is so familiar with. Should Dr Salisbury succeed in substantiating his theory, it will be one of the greatest discoveries in modern Medicine, and the localities in which this disease is most prevalent, can adopt such such Means as to prevent its occurance if not entirely eradicate it, and will certainly be the means of relieving much of suffering which this disease Causes.

Diagnosis. The diagnosis of this disease in well Marked Cases offers no difficulty. The type is to be determined by the duration of the intervals and a Comparison of the paroxysms.

Latent intermittents are not so easily

recognized, and to arrive at a correct diagnosis the Effects of treatment is sometimes resorted to. The Chills of intermittent fever is often observed in other diseases. Phthisis, Pneumonia &c. for instance but these can be distinguished by physical signs, and fortunately for the patient the treatment for intermittent fever will not hurt a person suffering from the above named diseases, but will sometimes arrest the progress of Tuberculosis. Another and very valuable diagnostic point is his previous Exposure to Malarious poison, and if Dr Salisbury's theory be true, the presence of the so called Ague plant in the

Urine is another diagnostic sign of some value.

Prognosis. Ordinary or simple intermittent fever is not by any means a dangerous disease. The most dangerous form of intermittent fever is called pernicious intermittent. I dont remember of ever seeing but one Case, and that was last summer in the Polk Infirmary. I have been of them occuring in my County but in my immediate locality are quite rare. The simple form of intermittent fever is very rarely fatal death may occur with its association with other diseases.

Treatment. The treatments of intermittent fever like all other diseases has dif-

ferent plans of treatment, with many followers on both sides I shall confine myself to what has been taught while a student at this time honored institution. In the treatment of intermittent fever I dont think there are many who discard the use of Cinchona and its preparations, Especially Sulphate of Quinia, it is the great sheet anchor in this disease. The main points of difference are whether you should give a purge before administering the Quinia or commence its administration immediately, I think that Prof. M. Henry recomends the use of a purge in order to clear out the Alimentary Canal and then commence the use of the Sulphate of Quinia

this treatment I have seen follows by the greatest success. indeed before I commenced the study of Medicine I did not know there was any other mode of treatment, it is certainly the Universal mode of treatment in my immediate locality. A favorite prescription of Prof. Howards is as follows.

℞ Sulphate Quinia gr xvj

Take Eight grains at night and Eight grains Early the next Morning he says that he has seen this treatment succeed when all others fail. Arsenious acid has been recommended highly for its antiperiodic effects in intermittent fever, I have never

seen it used therefore cannot speak from personal observation. The treatment of intermittent fever should not stop as soon as you have cured the paroxysms but the patient should be put upon Tonics, and here Quinine comes in as one of the best combined with Iron, Dr Howard has an Elixer of his own preparation which is very valuable in the after treatment of intermittent fever. It contains the following drugs

To Aquae ℥j he adds Quinine Sulph gr 1/2 Ferri Sulph gr 1/2 Strichnin gr 1/4 of this he orders to given a teaspoonfull three times a day. Another prescription that I have seen Dr Chew use with much

success is as follows

R Liq Potassa Arsenitis ℥ß
Tart Ferri et Potassa ℈ij
Aquae ℥ij
S. desert-spoonful 3 times

a day one hour after each meal. These are the principal remedies used in the tonic treatment of intermittent fever and it can readily be seen that I did not err in saying that Quinia was the great sheet anchor in this disease. Dr Bentz Jones theory of the of Quinia in malarious fever is one that is attracting the attention of medical world at this time and should he succeed in proving it beyond all doubt will be another

of those grand achievements of modern Medicine and will place his name higher in the roll of fame than that which he so ably occupies and for which he is deserving. His theory is as follows. He says that in health, there is contained in the blood a substance known as Quinoidine, which is destroyed by the malarious poison. Now Quinine being a restorative, by its free use in this affection, it restores back to the blood that which normally exists in health. With this I have concluded my Thesis, but before closing it becomes me to extend to the Professors of Practice and Materia Medica my

sincere and heartfelt thanks, for their excellent teachings upon the Subject of my Thesis, it being the great encouragement of the County I inhabit and where should I be successful in obtaining the prize I am struggling for I mean my diploma) I expect to practice my profession.

AN

Inaugural Dissertation

ON

Remittent Fever

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

John McD. Stansill.

Of

Rockingham N. C.

Session of 1871 & 1872

Gentlemen Of The Faculty.

It will scarcely be expected that one of my experience will be able to write anything original, but that I will only be reiterating those truths, which I have learned from attendance on your lectures and from my text books, and if I be found repeating or appropriating anything in my dissertation,

I beg that you will not consider me a plagiarist.

The Subject which I have chosen for my dissertation is —

Simple or Bilious, Remittent Fever.
Its marked character, as
its name denotes, is fever,
with very distinct peri-
odical remission and
exacerbation, with man-
ifest biliary derangement.
There exists no essential
or radical difference
between Simple Remit-
tent and intermittent
fever; there is a close
relationship between the
two, either being convertible
into the other, both are due

to a special poison known as malaria, and only differ from each other in grades of violence and duration of the paroxysm. It is not confined to any particular locality, but may prevail in all warm climates; neither is it confined to any particular age, but was prevalent in ancient times.
It was well known to the ancient Greek and Roman physicians.
It attacks without regard to age or sex. The negroes are said to be less liable to it than the

whites.
Almost all parts of the United States are more or less liable to it: it being more prevalent and severe in the Southern and South Western sections, than in the Northern. Situations near the valleys of streams and the neighborhood of ponds, lakes and marshes, are the most liable to be infected with malaria.
It is rare in elevated countries, except near large water courses.
It is also said very rarely to

prevail in dry sandy regions and in pine forrests; though during the past summer I knew it to prevail extensively in a piney sandy region around Rockingham, N. C.; whether it was contracted down on the river bottoms or originated spontaneously from the extreme dryness of the season.

Unacclimated persons, are more susceptible to the influence of malaria than the acclimated.

Pathological Changes.

The morbid appearance after death, which are most frequent in Remittent Fever, as might be anticipated from the symptoms, are situated in the liver, spleen and Stomach.

The liver is often enlarged and more or less softened, and has a bronzed or Slate colored appearance.

The spleen is most always more or less enlarged and softened; and has a dark or blackish color, from pigmentary deposit.

The mucous membrane of the

stomach very often presents an inflamed appearance. Various other organs are often found in an inflamed condition, but they are incidental and not considered essential to the disease.

In typho-malarial fever, besides the appearance considered essential to malarial diseases, the intestinal lesions most frequent in typhoid fever are found.

Symptoms.

The fever is generally preceded for several days by certain marked prodromes. Such as a

feeling of lassitude and anxiety, cephalalgia, a sense of weight and fullness in the epigastrium, anorexia and general malaise. The tongue is generally slightly furred near the base; the complexion is of a dusky yellowish hue.

Some of these symptoms are frequently wanting, and the patient may be attacked in the midst of seemingly good health.

The attack is usually ushered in by a chill or a sense of chilliness. During this stage the face becomes

pale and the lips of a purplish hue; the skin becomes contracted and presents a cutis anserina appearance; the extremities feel cold when the hand is applied to them, while the therimometer placed in the axilla shows an increase of temperature.
The pulse is small and accelerated, occasionly there is nausea and vomiting. This stage may last from a few moments to several hours.
When febrile reaction takes place, the skin becomes hot and dry, the temperature of the body is

from 2 to 10 degrees above its normal standard. The pulse is accelerated and full, and is often increased in force, there are from 90 to 120 beats in the minute; the respiration is hurried; the tongue becomes coated with a thin whitish fur. There is severe cephalalgia; pain in the loins back and extremities; the patient is restless and wakeful.

These febrile symptoms may continue from six to twenty hours or even longer, after which they begin to abate.

The skin becomes moist and

soft, the pulse becomes nearly natural, the headache and nausea nearly subside and the anorexia is not so complete. The remission is not always so marked, but in almost all the forms of the disease, it takes place in a greater or less degree. The remission usually takes place early in the morning and generally lasts two or three hours. The paroxysms generally assume the double tertian or quotidian form.

After the end of the remission another chill may occur, but is

more frequently wanting.
The fever again rises and is renewed with as much or more severity than the preceding paroxysm; thus alternation continues, each succeeding paroxysm becoming more severe and protracted, the remissions become less marked and the tongue becomes coated with a thick brownish fur; the ataxic symptoms grow more severe; in children there are often convulsions.
If the paroxysms remain unchecked, it soon assumes a malignant or typho-malarial form

or the severity of the exacerbation may mitigate and assume an intermittent form.

In the typho-malarial form the pulse is very frequent, it often reaches as high as 120 beats in the minute and frequently as high 140, while in force, it is small and feeble.

The skin is hot and dry; the tongue is red around the edge, while in the centre it is coated with a dry brownish fur or it may present a slick varnished appearance: sordes collect around the teeth; there

is tympanitis of the bowels, accompanied with diarrhoea; the discharges are dark and frequently bloody; the urine is scanty and often suppressed; the characteristic eruption of typhoid fever is often present. There is very frequently the nervous symptoms of typhoid fever, such as stupor or low delirium, deafness and subsultus tendinum.

The intestines are liable to be perforated. The paroxysms are more protracted and graver than in Simple Remittents; the remission is often scarcely

perceptible.
The symptoms distinctive of typhoid and Simple Remittent fever, are apt to be blended in various proportions.
In this form convalescence is apt to be protracted.
The preceding, are the Symptoms of Remittent Fever in its usual course, but it is subject to very wide variations, both in duration and diversity of symptoms.
It may assume a form so mild, that it can scarcely be distinguished from intermittent fever or the attack may be

so severe and the remission so imperceptible, as to be mistaken for typhoid fever. It would be almost impossible to give an accurate description of the symptoms attendant on each form, they are so varied, I have therefore confined myself to the general Symptoms in its usual course.

Cause.

Miasmatic diseases are due to a certain extrinsic impalpable toxical agent, known as malaria.

Our knowledge concerning
their precise cause is very
indefinite and uncertain.
Several years ago it was thought
that the obscurity of the source
of malarial poison was about
to be dispeled by the experiments
of Dr. J. H. Salisbury, of
Cleaveland, Ohio.
He claimed to have as-
certained, that malarial
diseases were produced by
introduction into the system
of certain cells or spores,
arising from a certain species
of algoid plants called

Palmellae; but it is now thought that he saw too much, as his experiments have not been corroborated by the researches of others.

It is still thought by some to be produced by the cells or spores of cryptogamic vegetation.

It was formerly thought to be due to emanations from decaying vegetable matter, in marshy localities, but that it is not due entirely to this is proven by the fact that it does not exist in localities, where vegetable decomposition

does take place in abundance."
It prevails mostly in marshy
situations, but is not confined
to such localities.
It is generated most frequent
ly in moist districts and dur-
ing the warm season, being more
malignant the nearer it ap-
proximates to the equator.
It often appears in sections of
countries, after clearing up
any dense growth and in
newly settled countries where
trees have been felled and
decaying vegetable matter has
been turned up.

It is often produced by turning up of the soil in making excavations for canals and railroads.

An example of the latter cause, was remarkable exemplified in the village of Rockingham N.C.: prior to the introduction of the railroad in 1867. Malarious diseases were seldom ever seen in any form, except where they were contracted on the river bottoms or in some other malarious locality, but since then it has prevailed

extensively in all former,
every year and during the
past summer it prevailed
to such an extent as to be
almost epidemical.
The disease during last sum-
mer may have been caused by
a number of pools of stagnant
water some two or three miles
below the village, from which
direction there was a continual
breeze during the sickly season.
Inundations and submerging
of meadows are said to be often
a source of Malaria.
The disease may be brought on

or hastened by fatigue, over-excitement, exposure to heat or by the want of proper hygienic care.

Typho-malarial fever is due to the combination of malaria and the cause of typhoid fever, existing distinctively, in the same individual.

Diagnosis.

In Simple Remittent Fever, the diagnosis is generally very readily made, by its marked paroxysmal character.

When it assumes a more continued form, the diagnosis

is not so easily made, but it may be generally made out; by observing a diminution of the temperature of the body, at certain time of the day, when the thermometer is placed in the axilla; by the abscence of the abdominal Symptoms of typhoid fever; by the presence of the gastric symptoms of Remittent Fever and by ascertaining the previous history of the patient, whether he lives in a malarial district or has been exposed to malaria at any time.

Typho-malarial fever may be made out, by observing that the symptoms of Remittent and typhoid fever are combined in the same individual.

Prognosis.

The milder forms of Remittent Fever almost always tends to terminate favorable or to assume an intermittent form and the severer forms are pretty much under the control of remedies.

—An attack of Remittent Fever leaves behind a liability to subsequent attacks of inter-

mittent fever.
When it assumes a continued or typhomalarial form, the prognosis is not so favorable, being equally as fatal as unmixed typhoid fever.
Some of the unfavorable symptoms are, stupor or coma, subsultus tendinum, bloody discharges from the bowels and the suppression of urine.

Treatment.

It is very seldom that the physician is called to see a patient during the cold stage, on account of the

shortness of its duration and from its being in other respects inconsiderable, but it is during the febrile stage that his assistance is called for.

His remedies should be directed against, the cause of the disease and to the allaying of the intensity of the febrile movements.

The first object may be obtained, by the administration of an antiperiodic, of which the sulphate of quinia is by for the most superior.

It was formerly the practice

to put the patient under a preparatory course previous to administering the quinine, but this is now thought to be unnecessary and the quinine may be given as soon as a remission occurs: if a purgative has been given previously, it does not interfere with the action of the quinine.
It is also the habit of some of the older physicians to give from ten to twelve grains of quinine in broken doses every two or three hours, only during the remission, except where the febrile

paroxysms were very protracted and the remission very undefined or where the preceding paroxysm has been one of great violence and it is very desirable that the succeeding paroxysm be cut short, for fear it may terminate fatally; but it is now advised, by one of the most respectable authors of the period, that the quinine be administered without regard to the intensity of the febrile movements, whenever the diagnosis has been clearly made out.
He recommends that the quinine

be first given in full doses of ten or twenty grains, to an adult and that it should be afterwards repeated in doses of from five to ten grains, after intervals of from two to four hours, untill it produces deafness or ringing in the ears; but before it is given during the febrile exacerbation, a very popular prejudice should be first overcome.

Cathartics are almost always indicated.

The bowels should be moved by six or eight grains of

calomel or by eight to ten grains of the mercurial pill, followed in five or six hours by a saline cathartic, castor oil or rhubarb.

There are some who have such a dislike for calomel, that they never administer it, but give podophillin or some mild aperient.

Sulphate of magnesia is often given, as a domestic remedy, but it seldom ever gives as good result as calomel.

Calomel when administered cautiously and proper care is

taken by the patient, is seldom ever followed by any evil result. Great care should be taken in giving calomel, for where there is excessive irritability of the intestines, an exhaustive diarrhoea is liable to ensue. Two or three grains of calomel sometimes produces a very obstinate and exhaustive diarrhoea. Precaution should be taken against too active purging, by prescribing Dovers powders or some astringent with the calomel, with directions that the bowels should be checked

after three or four actions.
It has been the habit of the older practitioners to give calomel in alterative doses, as they supposed with apparent good results, but according to the theory of the day, that calomel does not act as an alterative on the liver, they must have been mistaken.
We should not be governed entirely by theory, but give it an unbiased test.
When there is diarrhoea, a few grains of calomel will often do much towards relieving it.

Diaphoretics are often useful by relieving the heat and dryness of the surface and by lessening the duration and by effecting a more complete solution of the paroxysm.

Tarter emetic in one twelfth to one sixteenth of a grain, is recommended by some for its sedative effect, but where there is the least degree of gastric irritability it should be avoided.

The effervescing draught is a most efficient and certain

diaphoretic; it often pro-
duces copious diaphoresis.
Liquor ammoniae acetatis has
been recommended, but is not much
used at present.
Sponging the surface of the
body with cold water, when
the skin is hot and dry, is
a valuable assistant to the
diaphoretics and is very
soothing, but if there is any
tendency to moisture or chilli-
ness it should not be used.
Ice water and cold diluent
drinks given in small quanti-
ties and often repeated also

frequently aid the action of the diaphoretics.

When there is nausea or vomiting it is often relieved by the neutral mixture or by what is more efficient and agreeable the effervescing draught.

It is often relieved by lime water and creasote. Sulphate of morphia very often affords relief.

These are often aided by a sinapism over the epigastrium.

In a plethoric robust person, where there is violent headache with determination of the blood to the head, bloodletting

may be resorted to, but the necessity of resorting to this may often be avoided by pouring a large stream of cold water, from a height upon the head and back of the patient, until there is a sense of chilliness and the frequency of the pulse is reduced, this often produces most marked benefit. Cold cloths applied to the head are very soothing.
The nervous symptoms, such as wakefulness or vigil coma, restlessness and subsultus tendinum, may be relieved by

an opiate, the Sulphate of morphia seems most applicable in this condition
The preparations of ether are often very beneficial.
When there are convulsions, as is frequently the case with children, the child should have a warm pediluvion both, the head should be bathed with cold water, mustard should be applied to the extremities and Spine and assafoetida should be given by mouth and in an enema, two or three grains of calomel

often acts beneficially.
In typho-malarial fever anti-
periodics are indicated, with
the hygienic and medicinal
measures employed in typhoid
fever.
During convalescence mild
tonics, such as infusions of
cinchona, dogwood bark, wild
cherry bark and Serpentoria will
generally assist in restoring the
tone of the digestive organs
and in combating the tenden-
cy to intermittent fever.
The diet should be mild and
digestible.

AN

Inaugural Dissertation

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OF

PHYSIC,

OF THE

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DOCTOR OF MEDICINE,

By

William J. Corse Jr.

Of

Baltimore Co. Md.

Session of *1871* & *1872*.

Intermittent Fever.

Intermittent fever is one of those diseases in which the nervous system is involved; the symptoms being paroxysmal, and between the time, the patient is nearly as well as ever.

Varieties.

Intermittent fever is divided into three varieties; the quotidian, tertian, and the quartan.

When the paroxysm occurs at the same hour every day, it is quotidian; when at the same hour every other day, it is tertian; but, when there is no paroxysm for two days, it is the quartan. The quotidian comes on in the morning, the tertian at noon, and the quartan in the afternoon.

Seasons of Occurrence.

Intermittent fever may attack a person at any time; but, much more common in

Spring and autumn, than any other season of the year. The mortality is more frequent in the Spring, the tertian, and quartan, in autumn. It is one of those disorders of which all persons, at all ages, seem to be susceptible when submitted to the influence of the specific exciting cause; but, it is less likely to effect the very young, and very old, than those of middle life. The reason is because persons of middle life, are more exposed. We find more men effected than women; and especially those who are exposed to wet and damp places, and who go out very early in the morning, and after the sun has gone down; at this seems to be the time when

there is more danger of contracting the disease. The effects of even one attack of Intermittent fever upon the system are such, that it may be reproduced at any time. The disease, leaves the system in a condition in which a slight exposure may be sufficient to renew it without being where the Malaria could exercise any influence which was the first cause; for, if a person were never exposed to the Malaria, she would never, I believe have ague; but, having once had the disease, he may have it again at any time, though, he may not be subjected to the influence of the Malaria any more. I know a young

girls, who had very good health; but, being compelled to go into the malarious portions of Baltimore County, contracted the ague, and, though returning home far from a Malarious section of country she still, is troubled with it; though several years have passed, since she was under the influence of the cause.

The Stages and Symptoms.

1st. or Cold Stage.

A person who on the brink of a paroxysm of ague, experiences a sensation of debility, and distress about the Epigastrium; he becomes weak languid, and unfit for bodily or mental Exertion; he begins to Stretch frequently, and Some

feels chilly; particularly in the back along the course of the spine; he grows pale, his skin is dry and rough, such as may at any time; be produced by exposure to extreme cold; presently the sensation of cold becomes more general; the patient feels very cold and acts, and looks just as a person does who is exposed to intense cold; he trembles, and shivers all over, his teeth chatter, he complains of pain in his back, and loins; his bowels are confined, and his tongue is dry and brown. This, the cold stage, lasts about one hour and is succeeded by the hot stage, or fever. And The hot Stage.

The face becomes red, and the general

Surface, hot and dry, and a great-thirst. There is a great-deal of headache; the pulse full and strong, the urine is scanty and high colored, the patient is exceedingly uncomfortable and restless; after the stage has continued for some time, the skin becomes moist-upon the forehead and face, and presently; the thirst-ceases, the tongue becomes moist-and after the sweating terminates, the patient-is again as well as ever.

Effects on the System.

If intermittent fever run on for a long time, it may be the cause of some other diseases, as every recurrence breaks down the blood to a certain degree, by

diminishing the red corpuscles until the patient becomes so emaciated and weak, as to make the case fatal. I saw a case of Brights disease of the kidneys at the clinic last winter (1871) brought on by repeated attack of Intermittent fever. This case was exhibited to the class by Prof. Mc. Shane, as an example of one who had let the disease run on too long without treatment. The Spleen becomes very much enlarged, and has been known to weigh ten (10) pounds, and the outlines to be seen through the walls of the abdomen. This organ assists in breaking down the blood; when it gets too large, and hard, it is called

the ague cake. The liver becomes full of pigment matter or dark, settled spots, caused by the broken down blood and does not perform its function of secreting bile, the skin becomes very yellow, and has a jaundice appearance, so that a person could at once be recognized as having the disease. Even children under one year of age, seldom shake in Intermittent fever; yet, the fever comes on at regular intervals, and they become pallid; the lips, and ends of the fingers become blue. This disease is much harder to diagnose in children, than adults. An eminent Physician of Baltimore, was called to see a young child who was effected very singularly.

It was found, upon it a stupor and breathing rapidly; the Doctor examined it, and thought from its appearance, that some one had given it opium; but, finding that a mistake, he came to the conclusion that the child had gotten a fall, and received a slight concussion of the brain; but, after consulting another Physician, who had more experience in disease of children, found the child to have an attack of Intermittent; So, that in children it is often mistaken for various other complaints." (a quotation from Prof Howards lecture on Intermittent fever in children.) A certain degree of heat is necessary to bring on the disease, as

it is never known in cold countries. The nearer we approach the equator, the more pernicious does the poison become.

The Causes of Intermittent fever.

It is very evident, that the cause is some poison which exists on land; for, persons who follow the sea, never have anything like an ague fit while on the water, but, as soon as they reach land, or in Marshy places, they have been taken sick and would continue to have the chills. The poison is supposed to come from the decomposition of vegetable matter, which exists so commonly in swampy situations; but the poison does not arise from the Vegetable matter

while in a moist state, but after it has become dry, as proved by the ever abounding moist in hot & dry seasons, than in those which are cool & moist. Is this the reason why it is so much worse in the fall, after a long, hot summer. Last year (1870) was the hottest & driest hot summer, which we have known for a long time; therefore causing an early commencement of Intermittent fever, and being worse than was ever known in the malarious portions of Baltimore County, extending further into the dry land, and even into the city where it very seldom occurs, and seemed to last longer than has been known for a great while, even until the weather became quite cool.

A person is much more liable to the pernicious influence of malaria at night; than in the day time; the reason is not clearly known. To sleep in the open air, in such places; we almost sure to bring on an attack of the fever. Malaria seems to be worse near the ground; as, persons sleeping upon the lower floor of a house, are more liable to have the fever than the sleeping above. Malaria is supposed being moved by the wind, and is often carried to places far from where it was generated, to very high lands, and even over hills, and down into valleys.

I have seen persons the past year, who lived over two miles from any Malarious

district, who suffered with re...
intermittent attacks. It is very probable,
that water drank in malarious countries,
may give rise to intermittent fever;
for, it is the custom of those persons,
who enjoy the pleasure of hunting, and
fishing, along the streams which look
up from the Chesapeake Bay, to
take; Beer, or Ale, as it is often
noticed, that those who drink the water
found there, are always more likely
to have an attack of ague. My
opinion is, that if persons living in
malarious countries would build
cisterns, to catch water from their
buildings, and have them covered,
that no impurities could get in,

would no doubt be a preventative
to an attack. It is also known,
that Malaria is kept off by a thick
forest, which may lie between a
cultivated country, and the marshy
lands; the leaves, by breaking the
current, make it very dangerous to
sleep under the trees in such places,
at night. Intermittent fever is
degenerated only, by draining up the
Marshes, by straight rivers, and by
ditching, and cutting it; for places
which were formally very unhealthy, have
been made completely healthy by
cultivation. Dr Hutson gives an account,
that, in countries along the Mediterranean
sea, it is so fatal, that not only men

are destroyed, but animals, and birds, cannot live in certain times of the year.

Prognosis.

In climates like we have in Maryland, it is almost always favorable; yet it depends a great deal upon the condition of the patient; If he is delicate, or the subject of some organic disease, the ague may destroy him; but in a person of good health before the setting in of the ague, there is not much danger. In warm countries, ague is much more dangerous, and very often proves fatal. It is more likely to turn to remittent, or continued form. The longer intermittent fever has lasted, the harder

it is to cure; for, the Constitution is broken down, and the blood has so impoverished by a loss of red Corpuscles, that it takes a long time to build it up again; therefore, it is better to stop it as quickly as we can.

Treatment

During the first, or cold stage, it is better to get into bed and cover up so as to keep as warm as possible. Emetics were formally used in the early stage to cut short the paroxysm; and when given early when the paroxysm is suspected, or before the time, it would keep it off entirely; but, this treatment at the present day, is not used as it

fail to do good except when there is a loaded and depressed state of the stomach, in such cases they do good; as a general thing, the stomach is very irritable; it cannot bear much upon it, and is often hard to keep the medicine down. It is also better to give purgatives at first, as they clear the intestines of accumulations, which are apt to impede the operation of medicine given to check the disorder. A very good one to be given is the grains of Friday, or Blood-root; yet it is not necessary to wait for this to operate, before we can begin using some ante-periodics, of which I will first speak, is the Peruvian Bark

(Cinchona, U.S.) which is so highly recommended, and which is among the best of the vegetable tonics. This bark is imported from South America, where it grows upon the Andes mountains. There are a great many varieties of Cinchona; but, that which is used the most, is the Yellow bark, or Cinchona Calisaya, which contains the largest amount of the active principal Quinia, and is much more preferred on account of it acting more punctual, and in less bulk. The Sulph of Quinia is the best preparation, and should be used as soon as there are signs of the chill, and continued to be used throughout the disease. It is used

in doses of from two to ten grains; but, it best to commence with a large dose, say ten grains at first, and then give three grains every three hours during the day. Arsenic is another drug which has great power over ague, and is used in chronic cases. It is very good, but it is such an active poison, that it cannot be trusted in the hands of every person, as one over dose may be fatal, and therefore can only be given with care. It is best used in the form of Fowlers Solution, (Liq. Potas Arsen) this is given in dose of 5 drops, three times a day after eating.

AN

Inaugural Dissertation

ON

"Chronic Gastritis"

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

Charles Albert

Of

Baltimore

Session of 1871 & 72

"Chronic Gastritis"

This disease may be defined to be inflammation of the mucous membrane, and the submucous cellular tissue of the stomach.

Between this form of the disease and the acute variety, there is no very distinct line of demarcation; And although it is a very common disorder, yet chronic inflammation of the stomach is an extremely interesting disease, whether we look upon it with reference to its importance, its frequency, or its protean character.

It does not immediately

jeopardize life for it often
terminates in resolution, and al-
though Dyspepsia is generally
independent of inflammation,
yet Chronic Gastritis often so de-
stroyes the functions, and prevents
the feelings of the stomach, that
its functions become decidedly de-
ranged & Dyspepsia is the consequence.

Symptoms.— In general,
Chronic Gastritis approaches so very
gradually, that when it attracts
the serious attention of the patient,
the disease has existed quite a
long time.

Pain and uneasiness in the
Epigastrium, increased by pressure

the Epigastrium.

The vomiting in the early stages of the disease may be only occasional, and often then is to be attributed to some imprudence in diet

The appetite varies according to the extent of the inflammation, being sometimes only a little affected, and again, nearly if not quite lost.

Epigastric uneasiness is often found.

A feeling of disgust is a very prominent symptom; often the patient is desirous to take food, but is unable, and loathes the tempting morsel laid before him. This is not a genuine appetite, and in its place may be found a sensation of hollowness and sinking at the stomach

especially after eating; a deranged appetite, and a feeling of discomfort during digestion; pains and aching in the limbs as if weary of exertion; flatulence & eructations, vomiting of mucous and of food, loss of sleep with languor, debility and headache are among the symptoms of Chronic Gastritis. These may be strongly marked, or but one or more of the above symptoms may be found in any one case.

Sometimes there is no actual pain, but a sense of heat or of acidity; or there is often in its stead a feeling of fullness and distension, or of weight, gnawing and constriction at

be expected to be found in any one case, for the disease puts on a great variety of aspects, that depend on the degree, extent, cause, stage, and character of the inflammation, the tissue affected, the constitution & habits of the patient, and the diversity of the sympathetic derangements

Anatomical Characters. — That inflammation had for a length of time been going on in the stomach, we are made aware of by finding after death its coats thickened sometimes to a considerable extent, or only in some small spots, or by perceiving that some portion of one or more of them had been removed by ulceration.

The inflamed portions of the mucous

with a feeling of faintness and a vitiated taste.

Thirst is another symptom, and this may be extreme, and here it should be borne in mind, that cold drinks moderately taken afford relief, whilst hot and stimulating drinks increase the uneasiness.

A dry skin, scanty & dusky colored urine; an accelerated and hard pulse; a tongue with fissured edges & red tips; constipation, except in cases when the inflammation extends to the bowels, deranged secretions, mental anxiety, or dejected or perverted feelings are another symptoms of Chronic Gastritis.

All the above symptoms must not

of blood from the stomach and
agencies, (particularly gravitation) that
operate either at the time of dissolution or
after death, often occasion existence reduces
of the mucous membrane of the stomach.

Mischievous views in respect to the
treatment, might be entertained, if redness
and inflammation are considered
synonomous terms.

The gray or slate color is most often
found, and is coincident by the French
writers as Dr Watson says "a sure and
unequivocal evidence of chronic inflammation.

Hardening and softening of the
mucous coat with ulceration, black points
so close together as to give the whole
surface of the membrane, a black or

membrane exhibit a brown plate, or blackish color, & dark colored patches, with enlargement of the follicles may be seen.

Formerly it was taken for granted that inflammation was present in any stomach, when redness was found, that being indeed a sufficient indication, but by the experiments of Yellowly in 1813, it was ascertained "that stomachs previously in a healthy state often appeared reddened after death."

The fact now being established upon good authorities that redness is not an infallible proof of inflammation, since mere excitement or irritation congestion, or any cause that will obstruct the return

found together

Rarely do we find them in persons under 15 years of age.

Softening and even destruction of the coats of the stomach, might + does take place after death from the action of the gastric juice, and then are many other morbid processes besides inflammation from which softening might result, + this is worth knowing, as in an autopsy it is important not to confound real pathological appearances, with those which are cadaric

Causes. — Chronic Gastritis is often the consequence of the acute form of the disease, but is also an idiopathic affection, resulting from irritating substances acting

dark gray appearance, an other of the post-mortem disclosures.

Ulceration is not unusual, though found less common than in inflammations of the ileum, of the colon & of acute Gastritis. The ulcers that result from chronic inflammatory action are round and oval, naturally small, varying from the size of a small pin's pea, to an inch in diameter, sometimes no vascularity or thickening, but appearing as if they had been formed by punching out a part of the mucous membrane, or they have been found with rounded and elevated edges, occupying the indurated walls of the stomach

These ulcers are usually solitary, although occasionally there are two or more

Congestion of the portal circulation, and the sympathetic irritation arising from diseases in the liver and spleen or other causes.

Diagnosis. — For Dyspepsia it may be readily mistaken, but if the pain be felt in a particular spot, if it be very severe, if there be frequent vomiting after eating, if there be a red & tender tongue with prominent papillae or altered surface, and lastly if there be much and constant epigastric tenderness, I think the existence of Chronic Gastritis may reasonably be suspected, as in Dyspepsia the pain is dull and is not felt in any particular spot, nor are the meals in this disease often attended with vomiting

immediately on the internal surface of the stomach.

Under the head of incidents I may name indigestible articles of food, condiments, an habitual excess of eating, the abuse of alcoholic drinks, acrid medicinal substances, or even the excessive use of mild substances of a medicinal character, habitual exposure to cold, and damp situations, mental dependency, and neglected or badly managed Dyspepsia

Mental dependency if not an exciting cause, is a powerful predisposing cause, and it seems to me that united to a crude innutritious diet, nothing is more apt to give rise to this grade of gastric inflammation

good, and often is greater than
in health.

In Chronic Gastritis the tongue
which is red on the sides & tips, and is
covered in the middle by a dry
mucous crust resembling false membrane
is white in Gastralgia.

The breath is fetid, and generally
in Gastritis much thirst is present,
while in Gastralgia Saliva is a —
bundant, and there is no more thirst
than in health.

If the diagnosis should be obscure it
is best for obvious reasons to treat
the disease as inflammation and if
the measures thus employed fail,
then address our remedies to the

With Gastralgia it may be confounded, the treatment appropriate to each being diametrically opposite, it is manifestly of the utmost importance to make a correct diagnosis.

In Chronic Gastritis the pain although never absent is sometimes obtuse, & felt only on pressure, whilst in Gastralgia it is extremely violent and capricious sometimes disappearing and returning after an intermission with more or less violence. In the former affection the appetite is generally bad, sometimes amounting to a universal disgust for food, and nausea with vomiting are not uncommon attendants; whilst in the latter disease, the appetite is always

be a very dangerous disease.

Treatment. — What must be aimed at? What can be accomplished?

Not very often a cure, but always an ever able by prompt management to alleviate the sufferings of the patient. The first duty of the practitioner is to inquire into and remove the cause if possible; and his next is to subdue the inflammation, and for the accomplishment of it, we have depletion. Local depletion here by means of leeches applied to the region of the stomach is preferable to cups, they imposing too much pressure and thereby pain. Blood should be taken in small quantities, thus preventing the

neuralgic affection.

From Cancer of the stomach Chronic Gastritis cannot always be distinguished The Cancinating pains of Cascinoma cannot be considered diagnostic, as similar pains occasionally occur in Gastritis, and are by no means present in all cases of Cancer

The cachectic Countenance of Cancerous patients, an appearance peculiar to that Complaint, is one of the most characteristic symptoms, but the most decided of all symptoms is a tumor in the Epigastrium

Prognosis — With prompt treatment and strict attention to dietic rules Chronic inflammation cannot be said to

the Subnitrate of Bismuth, the
sulphates of Copper, iron, zinc and the
Nitrate of Silver.

Of this latter agent it may be said
upon the authority of some of the most
Eminent writers, that in doses of 1/4 gr
Combined with 1/6 gr of Opium, this given
4 times a day, it is often of great use-
fulness, in Chronic Gastritis attended
with vomiting.

Costiveness should immediately be
obviated, for which purpose for known
reasons, the mildest laxatives should be
carefully selected, and sparingly used.

But dietetic regulations very
often by themselves affect a cure
since irritating ingesta either cause or

exhaustion that would be occasioned by large bleeding.

In this disease medicines can avail but little, irritating the stomach, they must favor the progress of the disease; yet the following have been tried and with repeated success viz: Dovers Powders by inducing sleep & producing perspiration.

Revulsion, by means of small plasters or blisters frequently applied on the epigastrium.

Should there be no reason to suspect the existence of ulcers, the alterative medicines which act so well in similar affections of the mouth and fauces, should be tried Of which class I may name

crackers, mush, boiled rice & gruels

In many cases but especially in those attended with vomiting a diet consisting solely of milk has been found useful & often times remedial

The milk Dr Wood says "May be advantageously mixed with one third or one half or even an equal bulk of lime water" and under the use of this he has observed patients to experience an almost immediate change who have long been unable to retain a meal

Spirituous drinks as well as coffee & tea should be avoided, and whatever may be the drink taken the physician must be careful not to allow the stomach to be distended

sustain the disease, nothing in the
way of nutriment should be allowed
but the blandest and least
irritating articles of food, that can
be contrived.

Should the inflammation be of an
acute kind attended with fever and
a loss of appetite farinaceous or
mucilaginous liquids, such as de-
coctions of barley rice & flaid
preparations of tapioca, sago, arrow-
root, or boiled milk, should be ex-
clusively used.

On the other hand if the in-
flammation be chronic, and no fever a
more strengthening diet might be
used, which should consist of soaked

These then are the remedies that should be advised in cases of that distressing affection; although we whilst we recommend their trial, we cannot ensure their success, and since the suffering and distress to body & mind so great, the cure so difficult and uncertain, we should advise all to avoid the causes as much as possible.

During the treatment regular exercise, relaxation from the cares and anxieties of business, pleasant mental occupation, & a change of scene, are of great importance, as they prevent the mind from acting injuriously on the body

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ON

Scorbutus

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By

Thomas [illegible]

Of

Maryland

Session of 18

Bronchitis

Bronchitis is the inflammation of the mucous membrane of the Bronchial tubes, it is one of the most common of the Pulmonary diseases that come under the notice of the Practitioner. We have Acute, and Chronic. General or Capillary, Fibrinous or Plastic. Rheumatic and Syphilitic Bronchitis

This disease is brought on by sudden changes of Temperature from warm to cold. Exposure to draughts, insufficient clothing throwing off the Bed clothes at night and persons who are

employed in cotton factories, mills and stone cutters are liable to have it by inhaling the solid particles which are floating in the air, which by mechanical irritation cause Bronchitis. It also one of the manifestations of Tertiary syphilis. The chief symptoms of Bronchitis are fever, tightness or constriction about the chest, hurried respiration, severe cough and expectoration at first of a viscid glairy mucus, which subsequently becomes purulent. Capillary Bronchitis is marked by greater dyspnoea and tendency to early depression and prostration

It is most common in young Children and in the aged, and is considerably more dangerous than ordinary acute Bronchitis. It sometimes proves fatal by the accumulation of mucus, which the patient has not the power to expel causing death by suffocation.

Plastic or Fibrinous Bronchitis is a rare form of this disease. It is characterized by the formation of solid or tubular concretions of exudation matter and runs its course very slowly. The chief symptom is the expectoration of the casts of the tubes, very little suffering

being [illegible] by the small pieces
while the expectoration of the large
pieces is preceded by dyspnoea
dry cough and haemoptysis, these
cases often last for years, the
patients having acute seizures
with the peculiar expectoration every
few weeks, Medical treatment seems
to have no permanent effect upon
this disease, It is said that Sesqui
Carbonate Ammoniac will prove more
useful than any other medicine
Chronic Bronchitis is often free
from febrile symptoms being
characterized by the cough and ex=
pectoration with slight dyspnoea,

In the early stage of acute Bronchitis, two sounds will be heard, viz Rhonchus and Sibilus which indicate that the tubes are narrowed and the mucous membrane is dry and tumid. The Rhonchus or Snoring sound will be heard in the large tubes and the Sibilus or hissing sound will be heard in the small tubes they may occur alone or together, of the two sounds Sibilus denotes the greater danger soon the inflamed mucous membrane begins to throw out fluid of a viscid transparent tenacious, mucus character, this constitutes

The second stage of the examinations we have two other sounds very different from the two first named large and small crepitation, sometimes called the moist sounds, the air in passing through the bronchial tubes, is mixed with the mucus, so that numerous air bubble are constantly forming and bursting. When this occurs in the large tubes it is called large Crepitation, and when in the smaller tubes, small crepitation these sounds may be heard on both sides of the chest varying from time to time, in their character and loudness

There will be no appreciable tul-
ness on percussion except in
case of collapse of part of
the lung, which is caused by
a portion of the mucus forming
a plug in one of the bronchi,
and in expiration the air in
the lung is forced out at the
side of the plug, but during
inspiration the plug is drawn
further in and finally it is drawn
to a narrow part of the tube
which it closes entirely, when the
part thus closed becomes con-
=densed, Amongst the compli-
cations we may have Asthma

Pneumonia, Bronchial Dilatation
Pulmonary Collapse, and in
early life Chronic Pneumonia
is very common. Disease of the
heart is often attended by Chronic
Bronchitis. In the morbid
anatomy we would have general
redness and congestive inflammation
of the bronchial membrane with
more or less destruction of
the [illegible] Epithelium and sometimes
casts of tubes of plastic lymph.
There is no difficulty in diagnosis
of this disease, except in distinguish-
ing Chronic Bronchitis from Phthisis, which
may be distinguished by the

absence of dullness on percussion and of the signs of excavation, the expectoration is whiter and of less weight in Bronchitis than in Phthisis and there is no distinct hectic fever. and the temperature is not so high in Bronchitis as in Phthisis

Prognosis. Acute Bronchitis is often fatal in young children and old persons, but always fatal in middle life. In favorable cases the disease begins to decline between the fourth and eighth day, and soon

[illegible] or passes into the Chronic form. The Capillary form is very fatal, from one half to three-fourths die between the Sixth and tenth day, acute Plastic or Fibrinous Bronchitis is also very fatal having a mortality of one in four or five.

Treatment. The disease may be cut short by taking at Bed-time, a glass of hot lemonade, six grains Rimmins, or ten grains Dover's powder, after a warm mustard foot bath. If this should fail a brisk saline purgative

should be given, as Epsom or Rochelle Salts, or Citrate magnesia, and when the fever is high, and the Cough very tight and the Breast sore, Tartar Emetic should be given from 1/8 to of 1/4 of grain every two or three hours, with frequent drainage of flaxseed tea, or some similar [illegible], a large [illegible] over the Sternal region will aid in giving relief, [illegible] oil of Turpentine, In milder cases Syr of Ipecac, from 1/2 to 1/2 drachm every two or three hours will answer, and should be continued until the cough soften and the breathing

becomes easier. then syr Squillitic
drachm doses every three or four
hours. When the cough is very
troublesome at night give ½
to one drachm of Paregoric, or
Syr Squills ℥iij. Paregoric ℥j.
2 Teaspoonfuls upon retiring and one
or four times daily, Opiates do
most good after loosening the cough
with free expectoration. When fever
has abated and dyspnoea con-
tinue, a blister may be applied over
the Sternum. In Capillary
Bronchitis or in the ordinary form
in the aged and feeble, instead
of Tartar Emetic may require

more Stimulating, as Senega,
Nitrate or Carbonate Ammonia
with Quinine and vee tea. wine
whey or brandy punch. Inhalation
of Steam alone. or from infusion
of hops. sometimes soothes the air-
tubes. Chronic Bronchitis requires
counter irritants over the chest.
for which may be used Croton
oil 3 drops with as much sweet
oil. applied very light until
a papular eruption appears,
or we may paint the chest with
Tincture of Iodine. [illegible] may use
Plasters of Burgundy, pitch or Hemlock
and alternation of Stimulating

and alterative expectorants.
and Tonics. May give Balsam
Copaibae ℥iij. Comp. Spts Lavender
℥ij. White Sugar. Gum Arabic āā ℥ij
Aqua ℥v. tablespoonful 3 times
pr day. If the system needs build=
=ing up give Quinine. Iron or Cod
Liver Oil. When the secretion is
very copious inhalation of Tar
vapor or of Creasote should be
tried. the Tar vapor may be
used by putting an ounce
or two in a cup over boiling
water, so as to diffuse the Tar vapor
through out the room. Creasote
or Carbolic Acid. twenty or

Thirty drops may be put into a half pint of boiling water to be breathed by an ordinary inhaler when medicine fails. Change of air will sometimes effect a cure.

Patients generally do better when much out of doors than when closely confined to the house.

Galvanic & Faradic. Iodine Inhalations are useful in conjunction with Antiseptic treatment.

Croup and Spasmodic Bronchitis can very often be cured by relief of Constitutional disorder

Medical Thesis.

Inflammation its Pathology and Treatment.

By

Nathaniel Chapman.

Respectfully Submitted to the

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Inflammation – its Pathology and Treatment –

Among the many and various phenomena occurring in the Pathology of disease, there are few that are not more thoroughly comprehended than that of Inflammation. Tho a frequent and almost constant accompaniment of all organic derangement, the Medical mind of the present day is unable to answer the question What is Inflammation? Aided by the powers of the Microscope the Pathologist – is enabled to observe its phenomena, and experience teaches him its results, but nothing as yet has enabled him to lift the veil which has so far baffled human

wisdom - Mysterious as its Pathology is, it is sufficiently understood to enable the Surgeon to avail himself of its Process to accomplish results which he could not obtain by any other means in his power.

What then is the

Pathology of Inflammation?

We have previously remarked that when its various Phenomena as observed with the Microscope are enumerated, and its general results stated, we have reach the limits of our understanding of its Pathology. One of the earlier Pathologists dogmatically proclaimed Heat - Pain - Redness - and Swelling as comprehending its Pathology, whereas these were but the signs of the morbid Process, and not its Pathology.

We convey nothing definite of the hidden and mysterious process going on in the seat of Inflammation, by using these terms. We are but stumbling in the domain of speculation when we transcend the knowledge obtained with the Microscope. Theory is then promulgated for facts. Pathologists have divided the process thus observed into five stages.
First. Contraction of the bloodvessels in the part inflamed.
Second. Increased flow of blood thro' the vessels.
Third. Dilatation of the bloodvessels.
Fourth. Oscillation of the blood in the vessels, and then stagnation, the red corpuscles collected in the centre, and the white along the walls.
Fifth. The plasma is poured into the surrounding tissues. We can not but think, that there should be considered a previous stage

to all of these - wherein there is a molecular change in the surrounding tissue to give rise to the nervous influence to bring about these phenomena - The Heat is caused by the increased waste going on in the part inflamed. It is but the exageration of the source of all animal heat. The swelling is due to the Transudation into the surrounding parts - The Pain is caused by the stretching and pressure of the nerves by the Transudation. The Redness by the aggregation of the red corpuscles in the part inflamed. When the Inflammatory condition has continued for some time in the system, the analysis of the blood shows, that there are certain changes occuring in it - also - The white - corpuscles are actually increased and the red diminished.

The Salines are diminished in quantity, whilst the watery parts are actually increased. This last fact in connection with the diminution of the red Corpuscles, is the cause of the anemia which results from prolonged Inflammation, and indicates and important consideration which will be mentioned when we come to speak of the Treatment.

If the recent observations of distinguished Pathologists are correct, namely that in the stage of stagnation of the blood, the white corpuscles are seen thrusting themselves thro' the sides of the blood vessels, (hence the name Migratory cells) into the tissues, we can not fail to be struck with the beauty of this provission for reparation of the destruction occurring

in the seat of Inflammation. For if we
accede to the theory that these corpuscles are
destined for the Production of new
tissue, we can not conceive of any other
way they could achieve their mission
with less injury to the blood vessels.
If on the other hand we believe that they
are the source from which the Fibrine
of the blood is is derived, we can readily
observe the cause and effect, since
observation shows that in Inflammation
the Fibrine of the blood is increased.
This theory is not accepted by many
Pathologists, they maintain that the increase
of Fibrine is due to increased waste of
tissue, and not to increased nutrition,
or source of nutrition, in which latter
capacity the white-corpuscles are to be

reckoned if they are destined for the prolifeca-
tion of new tissue. Among these are to be
numbered no less authority than Erichsen.
The erroneous impression among the earlier
Pathologists, that there was increased flow
of blood thro the part inflamed, gave
rise to a mode of treatment which has
been the source of much discussion, which
we will not stop to consider at present.
But will observe in passing, that more
accurate observation establishes the
truth, that there is increased flow of
blood to and not thro the part.
The temperature of the blood flowing from
an inflamed part is elevated above
the normal standard. If this increase
of temperature is continued until it is
imparted to the whole circulating fluid,

it acts upon the heart as an irritant and accelerates its action, and produces that quickness and fregnence of the pulse which characterizes Inflammatory fever, and is not an evidence of increased force -

Terminations of Inflammation -

Inflammation has several modes of termination, those we deem necessary to mention are - Resolution - Suppuration - Induration - and Gangrene -

The first - Resolution is that which is attended with the happiest - results, and is that termination we endeavour to bring to pass in the treatment of Inflammation. The pain and heat first subside, the swelling lessens, and finally the redness disappears, and the constitutional symptoms gradually

vanish. The dilated bloodvessels contract, the masses in the vessels are broken up and pushed on by collateral streams flowing into the part. Extravasated deposits are now removed by absorption which has been held in abeyance during the active stages. It is not always that Inflamenation is followed with such happy results. Resolution may commence and proceed thro some of its stages, but the vitality of the part may be so much impaired, that reparation is impeded, and then we have Suppuration, and especially are we liable to have it if there is any lesion of the parts permitting contact with the external atmosphere.
Resolution may occur and pass thro' its stages until absorption should take place

but the vitality of the part may be so lowered that the absorbents are incapable of performing their part, and the exudation remains in the tissues, and then we have Induration resulting. During the active stages of Inflammation, the blood vessels which supply nutrition to the part, may be involved in the destruction so as to destroy them, or they may be so pressed upon by the exudation as to obliterate them so as to cut off the nutritive supply and destroy its vitality, then we have Gangrene resulting. These remarks upon the various terminations of Inflammation lead us to the consideration of the question of

Treatment of Inflammation —

I am well aware that I now approach what has heretofore proved to be the

thermoppolae of the Medical Profession. That this has been the Arena wherein the brightest-intellects have met, and the result of their investigations, is the truth and information we now possess. Rather than I should render myself liable to the Charge that "Fools rush in where Angels dare not tread", I shall not forget that I am but a Neophyte standing upon the threshold of a science which is a life time study, and shall speak "with bated breath and slammering voice". And I trust I shall not appear to cast aspersions upon the wisdom of the Pioneers of Medicine, or as unwilling to render them their due meed of praise for their progress in so intricate a Science, or unmindful of their limited facilities.

Unanimity of opinion upon any question, the proof of which is not susceptible of actual demonstration, is not desirable. In the conflict of reason, the search for truth that is engendered, can scarcely fail to bring to pass beneficial results, regardless of the aphorism that "there is nothing certain or determined in Medicine". In the earliest literature of Medicine and Surgery, there was a general coincidence of opinion as to the objects to be attained in the treatment of Inflammation. These were to remove cause. Remove products of waste — and to promote Resolution.

This opinion does not conflict with that entertained by the Profession of the present day. It is only in the means

to an end, that there is any disagreement which notwithstanding the definiteness of the object to be attained, are as antipodal as possible. Among the earliest and most constant means used was Bloodletting — The object supposed to be achieved by this operation, was the relief of tension, and the promotion of absorption. The question immediately occurs does it accomplish this? It is universally believed that the circulatory system is controled by the nervous system, now it appears to us, if the irritation which primarily produced the congestion is continued, it will continue to determine the excess of flow of blood to the part regardless of the depletion. If this is true it furnishes a negative answer to the

question as to its relieving Tension and promoting absorption - If it is contended that the cause of irritation is removed by depletion, it must be established first that it exists in the blood.
Another professed object of depletion was to remove the products of waste (the Fibrine), as is evidenced by their making the buffed and cupped clot the criterion of the necessity for depletion - This was attributing to these waste products an intelligence, and desire to be removed from the system, which we scarcely think they possessed - For it would be singular if they whilst diffused throughout the circulation should present themselves at the orifice in the vein to make their exit - It would be difficult to convince us that

Nature has not provided better Scavengers for the Blood in the Emunctories than the Lancet= Granting that these waste products were so removed by depletion, we can not but think its evil consequences upon the subsequent stages of the Malady were greater than the benefit-Temporarily gained- The truth is the earlier Practitioners depleted as a matter of routine, treating the name of the Malady, and not its symptoms and Pathology- They depleted equally an anemic and ill nourished Patient; as well as a young and robust well nourished, if they had the same Malady- They seemed not to regard the subsequent Clinical history of the disease, unmindful of the fact that the patient would need all of his vital

Jones to carry him thro its long and exhausting course. Forgetful or ignorant also, that the blood they so copiously removed was the Army from which the means of reparation were to be drawn. The prevailing impression seemed to be that Inflammation was always of a Dynamic character, and was to be subdued by depletion, starvation, and other so called antiphlogistic measures. I am willing to admit it may have assumed a Dynamic type and to have required sedative measures, but not exhausting. No one can argue from the general type of Inflammation of to day what it may assumed in earlier periods. I am conscious of the fact that some writers deny the fact that diseases

have undergone a change of type, but observers of the change which has occured in Malarious diseases in the last fifteen years, are forced to the conclusion that they do. Previous to the period mentioned they were characterized by symptoms that indicated exalted action, (not function), and necessitated sedative treatment. During the last ten years, I have not observed a case which was not marked with typhoid symptoms from the begining and requiring supporting treatment. Conceding that it may have assumed this exalted character, we can not but think that sedative, and not exhausting measures were indicated.

Mercury is another remedy which has heretofore been greatly relied upon

in the treatment of Inflammation. It is used to some considerable extent by many Eminent Practitioners of the present day, but not for the same object it was formerly. Previously Mercury was used for its depleting powers and so called antiphlogistic effects, it is now used for its supposed Corbefacient and its well known alterative powers. Without entering into the discussion of its merits, we must confess our belief that Mercury has a Therapeutical effect in Inflammation which we do not understand, its beneficial results when judiciously administered, we can but perceive and appreciate. In its administration its debilitating effects should not be

forgotten, and its good results prevented by its abuse.

Having questioned the wisdom of the earlier Fathers of Medicine and Surgery, it is "meet and proper" I should present the views of a more enlightened age, and a better understanding of the Pathology of Inflammation - and here we are met by a modern school who err as much as the Pioneers of Medicine and Surgery tho' in an opposite direction. I refer to overstimulation. Ultraism in the practice of Medicine is as reprehensible as in Theology, and we can not but agree with our honored Professor of Obstetrics when he says that "He who holds his lancet aloft, gory with the blood of his fellow man, or he who

brandishes the Brandy bottle, and declares either the sole means of treating Inflammation, is not to be trusted in the practice of medicine". The old aphorism "Medio via tutissimi" holds good in Medicine and Surgery as in other things.
The enlightened opinion of the Profession of the present day, consent to but one condition that will admit of general depletion, and that is in the first stage of Pneumonia, when a portion of the Lung has become impervious to the Pulmonary circulation, and the patient is suffering with intense dyspnoea from the accumulation of blood in the right cavities of the heart. Then only is general depletion advisable, but not for the purpose of relieving the Pulmonary congestion

or for the promotion of absorption, but to relieve the accumulation of blood in the right cavities of the heart. Ths the propriety of general depletion is so universally questioned by the practice of the present day, there is general concurrence of opinion in the benefit to be derived from Derivation. By means of warm baths. Pediluvium. Dry cupping. Sinapisms. Turpentine stupes. and hot fomentations to relieve the local congestion. The inordinate action of the heart to be controled by sedatives. veratrum viride. Aconite. Tartar emetic, thereby diminishing the force of the flow of the blood to the part, and as a consequence a diminution of pain. If it is an organ that is the seat of the Inflammation, rest of

function is to be insisted upon - If it is the digestive organs, Opium is the means relied upon to accomplish this result. In fact the relief of pain is one of the prime objects in the treatment of Inflammation, as we thereby preserve the strength of the patient - And the Pharmacopea possesses no better drug to accomplish this than Opium -
In cerebral Inflammation it should be administered with great caution, and effects carefully watched, for if pushed too far the symptoms will be aggravated -
In thoracic Inflammation of infants it should be administered with care as it will prevent them from making the necessary effort to relieve the bronchial tubes -

If it is a limb that is the seat of Inflammation, rest in an elevated position to relieve the force of the flow of the blood to it, and also to relieve the congestion by gravitation - is a measure by no means to be disregarded. The constant and unremitting application of cold, either wet cloths, or pounded ice, or by irrigation is a valuable remedy in diminishing the congestion which also relieves the pain. Injurious results can occur from the too persistent use of this valuable remedy, its action should be carefully noted. Promotion of the excretions from the kidneys and skin, to remove the waste products, should be effected with diuretics and diaphoretics. If there is constipation, it should be removed by laxative cathartics

or enemas, carefully avoiding purging with drastic cathartics. If the vital fires are weak and failing they should be sustained by stimulation with alcohol - wine - or ammonia. Not pushing the remedy too far, thereby depriving the patient of its benefit= Finally above all to sustain the the patients strength, by alimentation with concentrated forms of food, beef tea - milk - mutton - chicken - or any other easily assimilated articles of diet= also restore the patients impoverished blood with tonics of Iron and the various salts of Cinchona -
And in conclusion we would observe that the intelligent Practitioner

should hold himself free and bound to do whatever he in his enlightened judgment thinks, the symptoms of each and every individual case indicate should be done - His judgment and experience being his guide and not the dictum of mutable theories -

AN

Inaugural Dissertation

ON

Intermittent-fever

Submitted to the Examination

OF THE

Provost, Regents and Faculty

OF

PHYSIC,

OF THE

UNIVERSITY OF MARYLAND,

FOR THE DEGREE OF

DOCTOR OF MEDICINE,

By

J. Randolph McChesney

Of

West-Virginia

Session of 1871—72

Intermittent Fever

Of the true pathology of intermittent fever there seems to be but little known; why, I am not able to say — it is a disease that the practitioner is, very frequently, called upon to treat almost every where.

Intermittent fever is, as a general thing, far from immediate danger to life and is easy of diagnosis and amenable to treatment, but occasionally it constitutes a most dangerous malady & places the patient in an eminently & immediately dangerous situation — I shall in this paper only treat of the milder forms & give the various

, known as Remittent fever, only a passing notice.

Intermittent or malarial fever is known, by the several names of "fever & ague", "Chills & fever", "the Shakes", in Louisiana "swamp fever", "Panama fever" &c — An intermittent fever is characterized by the occurrence of febrile paroxysms in regular successives, and by the absence of febrile movements between the paroxysms [Flint's prac. Med.]

The name given to this fever — "intermittent"? I deem a most exellent one as the intermission is the distinctive feature of the malady

In a great majority of the cases the attack comes on suddenly,

without warning — but patients who have been the subjects of this harrassing disease can say with a good deal of accuracy when an attack is impending as it generally appears at regular intervals & they know by past experience when they feel an inclination to yawn continually, with pains in the head, back and limbs, with thirst anorexia &c that they are about to have another attack — these symptoms are not, actual, distinctive of this fever more than another for in all fevers we have, to a certain extent, the same symptoms mentioned. When a paroxysm is complete it is composed of three distinct

stages — First the cold stage in which the patient complains of a cold chilly feeling, head ache, pain in the back and limbs — sometimes only a slight creeping of the muscles, in other cases severe rigors — I remember, when a boy, of about nine years, a great stout negro woman, belonging to my father, being the subject of repeated paroxysms who during the cold stage had rigors sufficiently severe to actually cause a distinct rattling of the windows in a substantially built house & in the same room were other servants suffering at the same time who had not the slightest rigors

During this, the cold stage, the

hair over the body & limbs bristle & stand on end, horripilation — the patient has an anxious and distressed look frequently moans & sighs — the countenance is entirely changed he wears an expression more of distress than of pain — the pulse generally accelerated is feeble — the lips & face pale, but may be just the contrary with a considerable lividity of the roots of the nails — Fingers, frequently, if wounded do not bleed — have the appearance of the fingers of a person recently dead — frequently complain of a feeling of oppression refered to praecordia — with palpitation — In very young subjects — Children —

convulsions may occur. If the hand be placed on the surface a sensation of cold is conveyed to the examiner, but if that most valuable little instrument, only of late years made use of by the medical profession, the thermometer, be placed in the axilla, the most convenient place, an increase of temperature over that in health will be observed — if the thermometer be placed at the extremities the temperature is noticed to be less than normal.

Circulation seems to be suspended on the surface with internal congestion — in this stage coma may supervene — The length of time that this

the first or cold stage lasts is variable; in some cases lasting for two or even more, hours, ordinarily a few minutes the average time of duration being from thirty minutes to one hour. terminating in the second or hot-stage In this stage comes the febrile movements more or less severe; quick pulse-flushed face - return of & accelerated circulation on the surface instead of the impeded surface circulation of the cold stage caused probably by by spasmodic contraction of the peripheral vessels. Cephalalgia continues, but decrease or complete cessation of the pain in the ~~extremities~~ limbs & praecordia. The thermometer shows an increased temp. to

105° or 106° or even greater, with thirst. This stage continues for a length of time ranging from two or three hours to eight or nine and even nine hours. At the close of this stage commences the third or burning stage; commences with a little moisture over the body & extremities. The burning may be profuse or very slight — With the commencement of this stage the great thirst, headache & in fact all unpleasant symptoms commence to subside and with the end of this stage the paroxysm ends and the patient falls asleep & sleeps soundly waking much refreshed and comparatively for a

time well - but only for a time & that he who has frequently suffered well knows.

This in short is the history of a paroxysm next following is the apyrexial period or the intermission which will be presently spoken of.

The sleep following the sweating stage is awaked from, as has been said, the patient, feeling much better & in many cases, where the disease has not been of long standing, perfectly well, rarely ever being confined, between the paroxysms, to his room, frequently going about his daily vocation being compelled to return to his bed in

one, two or three days, as the case may be, to pass through the same miserable ordeal - Thus the patient frequently allows paroxysm after paroxysm to recur before medical advice is sought.

The paroxysms, or as they are generally called chills, may occur at any time, but rarely do they occur at night most frequently coming on in the forenoon. In a short many cases after the attacks have abated the patient is much prostrated & weakened, becomes pale & anaemic - Complications & sequels will hereafter be mentioned.

The apyrexial period or intermission is the space of time between two successive paroxysms. The time

from the beginning of one paroxysm to the beginning of another is called the interval —
The duration of the interval determines the type of the disease
The types of this disease are the "quotidian", "tertian", and the "quartan" types — In the quotidian the paroxysm comes on every day as is implied in the name, making the interval about twenty four hours —
The tertian type — in this type the paroxysm comes on every alternate day making the interval about forty eight hours — for example the — case — was a child was taken ill at or about Eleven O'clock A.M. on Wednesday he had a return about the same time on Friday another

and so on — In the quarton type the paroxysm occurs on the fourth day counting the ~~two~~ days on which they occur making the interval about seventy two hours —
It is common for the paroxysms to occur about the same hour each day but this is not always the case

Of the three simple typ's the quotidian & tertian are the most commonly met with the other being somewhat rare — Prof. A. Flint in his work on the prac. medicine says "of 98,237 cases of intermittent fever in the United States army only 1,775 were of the quarton type" which statement he takes from "Woodward" camp diseases of United States army —

During some seasons in a given locality the greater number of cases may be of the tertian type and in another season of the quotidian type, but in a number of years the quotidian will be found to occur most frequently

Either of the simple types may be duplicated but such an occurrence is rare. We may have a double quotidian two paroxysms occuring daily or a double tertian & so on, but these types being rare it is unnecessary to enter into any thing like a protracted explanation here —

Enlargement of the spleen is spoken of by Dr. A. Flint as an occasional complication — Since my connection with Baltimore Infirmary I have seen quite

a number of cases of enlarged spleen caused by malaria, sometimes reaching an enormous & almost incredible size. Of course I am not inclined to give this as a contradiction to Prof. Thuds statement - for my experience is not sufficiently great to warrant any thing of the sort. I am unable to say any thing of its pathological connexion with the disease in question — There seems to be little or nothing known by any one of the pathology of this affection — The Spleen may remain enlarged for a considerable time after the paroxysms have been broken up Anaemia is invariably incident to the malarial poison, if it continues for any length of time, to act — prior

and oedema face with a yellow or sallow tint give a physiognomy characteristic of malarial poisoning — Sometimes as a sequel we see decided anasarca with effusion into the serous cavities —
The disease shows a decided tendency to continue indeffinately if not interrupted by curative means, but it has been said to end spontaneously. However perfectly a cure may be made the disease is almost certain to return if the person remain in what is is known as a malarious region of country and in many cases it returns after being once stopped even after the patient takes up an abode in a situation perfectly free from malaria —
Intermittent fever is caused by a

certain morbific poison termed malaria
This malarial poison attacks by preference moist
and low localities & never develops its
self at a lower temperature 60° F. Prof. Salis
berry of Cleveland Ohio was the first
to detect & explain the poison which
he says eminates from certain species
of algoid plants called Palmella belonging
to the lowest kind of vegetable organ
ism — for a fuller discription of this
matter I refer the reader to Prof. Salis
berry's paper on this subject.
The period of incubation is variable from
a few weeks to several months may
elapse before the disease manifests
its self. & I have myself known patients
to live in malarious sections of
country & have no attack till they

that removed is a situation perfectly free from it. The variable period of incubation & its efforts to obscure the striking features of the disease.

The diagnosis is usually readily made with difficulty - it is sometimes to a certain degree difficult- in cases that are known amongst physicians who practice in malarious regions as "latent-malarial", but-new a doubtful or suspected diagnosis may be cleared up & substantiated by treatment- and supplying the treatment that is most commonly used in malarial fever is rarely if ever trusted in the cases in which intermittent- fever is likely to be suspected to Exist- Sometimes in phthisis pulmonalis poor

ysms occur at regular intervals resem
bling very much the malarial fever, but
here the known tendency to either the
one or the ✱ affection is of service as is ✱ other
the fact that malarial paroxysms occur
decidedly more frequently in the morn
ing & those of phthisis pulmonalis in
the evening — Chills are also conne
cted with suppuration & operations on
the urinary passages — According to Dr.
Lilisberry the diagnosis may always
be rendered absolutely certain by a
microscopic examination of the urine,
but a microscope is not always at
hand — The Prognosis may ordinarily
be said to be favorable but may be
rendered very unfavorable by the
complications of anaemia, general

Dropsy &c. Death may result from the association of malaria with other diseases but generally there is no immediate danger to life —
The Treatment is generally simple; the salts of quinine may be considered almost a specific. The Sulphate of quinine is most generally used & will almost invariably arrest the disease

I think it best to give the drug in decided doses in the beginning of the attack as it is desirable to bring the disease to as speedy termination as possible & prevent a return for by checking the ~~po~~ action of the poison ing the liability to secondary affec-tions is rendered less. It is entirely unnecessary to give, as was practiced

Some years ago, any remedies to prepare the patient for the administration of the sulphate of quinine. In former times the patient was first put, as for the administration of quinine, upon a course of mercurial cathartics, emetics &c Sometimes blood letting was practiced.
Such a course is calculated to do harm, I think, rather than good, & at least entirely unnecessary & the quinine should be given immediately in doses ranging from gr. X to XX in the course of the day, such a quantity will be found to be well borne by the stomach of most patients — My honored Master, Prof. R. McSherry, recommends, I believe, that the quinine be given in small doses so that from

½ dram for or V —

gr XX – XXC be given in twenty four hours to be increased if necessary – Prof. A. Flint recommends the same as regards size of dose & thinks that the sooner the drug be administered after the paroxysm the more apt it will be to prevent a return – Signs of Cinchonism should be produced when necessary as rapidly as possible I do not think it is always necessary to ~~produce~~ carry the drug so far as to produce tinnitus aurium. & when it is produced the quinine should be stopped

Sulph. of quinine may be administered in pill, powder or solution – It will generally be most preferable to give it in pill as the taste, which to most persons is very

unpleasant, is in that form almost entirely disguised; but when its more speedy effect is desired it should be given in solution as it will in solution be much more rapidly absorbed. thus - if a patient be seen at 9 o'clock in the morning and a paroxysm is expected at 11 o'clock of the same day, if a decided dose, in solution, of the sulph. quin. be given it may ward off the expected paroxysm & if it does not it will render it milder & most probably will suffice to prevent a return. I have seen the following, in such cases, act with marked effect -

℞ Sulph. quinine gr. xvj
acid sulp. arom. gtt xv
aquae ℥j - misce

Ligna — one tablespoonful at a dose —

If the patient is seen only a few hours before the paroxysm is expected the first dose should be taken immediately & if the chill come on the next dose should to administered immediately after the sweating stage —

In a number of cases, I think, this will be found sufficient to prevent a return —

When ever quinine is administered about one drop of aromatic sulp. acid should be given with each grain of the quinine as it is thus rendered more soluable — Some stomachs will revolt at quinine — then it should be ※ per rectum in large doses or hypodermically ※ in much smaller doses —

※ administ

※ The following may be used. ℞ Sulph quin grij
aquae dist. fʒj
acid sulph. aromat. q.s.

all of the preparations of cinchona possess antiperiodic properties, but the sulph. of quinine is by far the best in most cases — I have seen, in the Baltimore Infirmary, University Hospital, the sulphate of cinchonia used with entire success & with in all cases excellent effect, in only one or two cases, I have seen the stomach reject it when the sulph. of quinine could be borne — Twenty grains of the sulph of cinchonia is about equal to sixteen grains of sulph of quinine —

The two salts just mentioned do not invariably destroy the malarial poison but it frequently necessary to use other means, but the preparations of both are by far the most to be relied upon —

Salicine in doses ranging from gr XXXX

to ʒij during the intermission — Prussian blue, in from gr XXX — 100 during the intermission — The antiperiodic powers of arsenic are greater than any drug after the preparations of Cinchona, it is best administered in powders solution — dose gtt vj — xij nitric acid in dose ranging from gtts iij to gtts jx — Chloroform, thinks Dr A. P. Merrill, should have a high standard amongst the antiperiodic — It may be given in fʒj doses to be followed immediately by cold water or in mucilage. I think the best way to administer it is in a little brandy — I have never seen it used as an antiperiodic —

In all cases the preparations of Bark should be first tried — they are generally

well borne, but actual trial proves they are not in any case grateful to the patient. Then some of the means mentioned, to which a great number might be added, may be used.

After the paroxysms have been stopped it will be well to continue for a time some one of the preparations of bark with iron, especially if the patient be anaemic. Valerianate of quin. may be given in gr iij — v. dous — Citrate of iron & quinine may also be used, for a substitute ~~may be used~~; it is cheaper, sulp. quin & mur. tinct. of iron

The compound tinct. of bark* is an excellent preparation — where the cost of the remedy is a consideration the following may be used as a substitute as

* Hexhaus tincture of bark.

It is much cheaper —

℞ Pulv cinchona bark (red) ℥j
Precip. carb. of iron ℥ij
all spice, ℥j
Misce et fiat Pulv. No xij
Signa — one ter die in syrup.

Thus far nothing has been said of the means to be employed during the paroxysm —

Bleeding has been done during the cold stage — It can, I think, rarely if ever be beneficial & in ordinary case such a decided step is entirely uncalled for as the patient is in no immediate danger of loss of life & it may do harm.

Sinapisms to the spine, oil of turpentine applied on flannel cloths dipped in

hot water, dry cups, hot applications to the feet, a foot warmer, or bottles, filled with hot water & a decided opiate may prove very beneficial by rendering the paroxysm of shorter duration & less severe. it will at any rate make the patient more comfortable —

During the hot stage ice water & small portions of ice & tepid fomentation over the surface will tend to give comfort — If the patient's linen becomes damp from sweating it may be changed, if it can be done without exposure, & the surface of the body & limbs wiped with an old towel, flannel or soft sponge

All of the affections, such as dropsy, enlarged spleen, anaemia &c occurring as sequels of intermittent

fevers require tonic containing some one of the preparations of iron.

Persons who are exposed to malarial poison should as a precaution* especially if they are exposed to the early morning or late evening air. Inhabitants of malarious districts should live on the high ground & keep in doors as much as possible early in the morning & late in the evening. If there is a swamp on one side of a house from which the malarial poison emanates the windows & doors on that side of the house should be kept closed ~~early~~ except in the middle of the day & a quantity of shrubbery caused to grow between the house & swamp.

Pernicious intermittent fever is, happily very rare, but when it does

* take daily small doses of quinine

occur the treatment is very much the same, here bloodletting may be of service, and the antiperiodic, quinine, should be given without reserve & with any fear of giving too large a dose
The simple types may after a time assume the pernicious or it may be of the grover type from the first

An

Inaugural Dissertation

On

Pneumonitis

Submitted to the Examination

Of the

Provost, Regents and

Faculty of Physic

Of the

University of Maryland for

the Degree of Doctor of Medicine

By

Amos Edward Parker, of

Wetheredville,

Baltimore County

Maryland.

Sessions of 1871 & 1872

Pneumonia

This is one of the many diseases in which the young practitioner is very liable to meet with in his early career, and it is well for all to be acquainted with its nature, &c

Therefore, I select this, subject for the consideration of the Proffessors of the W. Md.

Pneumonia, or Pneumonitis is a inflamation of the Parenchyma of Lung.

It is divided in 3 stages 1st Stage, that of Engorgement, 2d stage that of red. Hepatization

and 3d stage, Hypostatization

Anatomical Characters

In the stage of Engorgement or 1st stage, we have an abnormal accumulation of blood to the part, and the lung is heavier also when cut into, pours out a serous liquid, more or less frothy and at the same time [illegible]

This state of engorgement might be confounded with Hypostatic Congestion - but, to differentiate - In Hypostatic Congestion, we usually have it bi-lateral and in the most

dependent portion of lung.
Whereas in Pneumonitis, it does
not follow the law of gravitation
and the blood accumulate in
the most dependent part - but -
it occurs where the seat of
inflamation is, and on but
one side usually - The lung
at this period though heavier
than healthy lung, still contains
air, and does not sink when
thrown into water - This stage
does not last long - however, and
then the stage of red hepatization
has begun - This consists of of an
Coagulating material from the blood

and an exuded matter, which examined under the microscope the substances blocking up air cells are found to be composed of molecular matter, which is probably amorphous fibrin or lymph in a granular form, epithelium fatty granules &c = In the 3d stage the affected lobe is in one of two conditions: If the diseases pursue a favorable course, the 3d stage begins when it is evident that ~~ap~~ absorption of exuded matter is going on, and convalescence has taken place during this period.

Of Or if the disease pursue an unfavorable course, and goes on to suppuration, it is termed the suppurative stage, and generally proves fatal

Clinical History

The 1st stage of the disease may occupy, but a few hours: usually, 12 to 36 hr = But the solidification occupies sometimes 2, 3, or 4 days.

In the majority of cases, this stage is from 24 to 48 hr in duration: The stage of solidification may also be of short duration = In the majority of cases it is from 1 to 4 days

Generally resolution is completed in 8 or 10 ds = In some cases it requires some weeks before the air cells attain their normal condition

In the majority of cases, when pneumonia begins with a chill frequently accompanied by rigors

The Thermometer indicates an increase of temperature when placed in the axilla, but the subjective symptoms are changed = Soon after we have pain, usually of a pleuritic character = it resembles the pain in Pleurisy = The Pleuritic pain is due, and proportionately great according to the amt of pleura

involved - or the elements of, Pleuritis
it usually in a circumscribed
spot near the nipple =

Cough is usually present
soon after invasion, but it
sometimes wanting; we have
have expectoration, which at
first, of a viscid, transparent
and scanty = afterwards it
becomes more abundant, thicker
of a rusty color, and is known
as the rusty expectoration

It is not always rusty
and in some cases white,
wanting = We have fever at
the time of invasion, pain in

[illegible], loss of appetite, thirst &
prostration = The pulse varies, in
different cases ranging from
80 to 120 per minute = The thermom.
indicates an increase of temper.
and in mild case never goes above
104° F. = A sudden increase of temp.
is indicative of a new lobe being
invaded, or some intercurrent
affection = The respiratory acts
are increased in frequency =

The symptoms during the stage
of resolution denote progressive
improvement = The febrile movement
diminishes and ceases = The cough
and expectoration become less & less

the respirations assumes their normal frequency, the appetite improves, the strength of individual is increased, and convalescence is declared. But if the disease pass into a stage of suppuration, the symptoms denote unfavorable progress

The pulse becomes frequent & feeble the expectoration abundant & purulent, the respiration frequent the strength of patient fails, and death takes place by asthenia, aided by the morbid accumulations in air cells

Delirium not infrequently occurs

It may be mild, and [illegible]
dental to high febrile movement -

Also a circumscribed redness of
one or both Cheeks =

Causation = It occurs often
in males than in females - it is
rare under 5 yrs of age = it occurs
most frequently between the 20 & 30
years of life = Its common cause
- is Exposure to vicissitudes of
weather = It often occurs as
complications with other diseases
as Typhoid & Typhus fever - It
occurs often in the Middle
& Southern States than in the
Northern State =

Diagnosis = If the pattent be seized with a chill followed by febrile movement, with pain referred to (in clinical history) and the rusty expectorant the diag. is comparatively easy = But these symptoms are by no means always present; We must then resort to the Physical Sign.

In the 1st stage we have slight dulness on percussion and the crepitant-rale, which is dry, fine and limited to inspiration = In second stage we have dulness on percussion marked and Bronchial respiration

The Dulness corresponds to the portion of lung affected by solidification = The stage of resolution is indicated, by the modification of the dulness, caused by the solidification, and the Bronchial resp. giving place to the Broncho vesicular respiration, and as resolution progress, it simulates more and more the vesicular murmur

If the disease goes on to suppuration, the dulness continues and the mucus rales still continue

= Prognosis = If the, patient be of a good constitution and the disease is confined to but

one lower lobe, and it is uncomplicated it is favorable - Of course if it occured as a secondary disease it would not be so favorable

If more than one lobe be affected and the patient be a vigorous individual, and it is primary the prognosis is not bad =

The danger is not so much in the disease itself, but the complications which it may have to encounter

Treatment

The antiphlogistic plan of treatment is now made use of, by a great majority

of Practioners = and from what I have seen I think it good. We first notice Blood Letting. This is admissible in the first stage of the disease only: it relieves the pressure of blood in the lung, by diminishing the quantity of blood in the right cavities of heart.

It may be practised in different modes simply by Cups or Venesection. In a case which came under my observation in March 1871 at Infirmary, the patient a girl, when recieved into Hospital was

evidently suffering in the first stage of Pneumonia = Dr Conrad applied Wet Cups and took a few Ounces of blood, and the patient who previously was suffering intense pain with great dyspnoea, with a full bounding & rapid pulse was in a short time greatly relieved; an opiate was given and the patient rested well the same night:

Much good can be obtained by means of depletion in using saline purgatives and sedatives but on the whole, I do not

think so reliable as drawing
a few ounces of blood

Opium is highly valuable in
the first stage to relieve pain
and tranquilize the system:
Turpentine Clysters or Cooling
Irritants are useful in this
stage also - In the second stage
it is the object of Physician
to aid Nature in bringing about
resolution & palliate the
Symptoms of disease which may
arise, and suspect the powers
of the System - Blood letting
and depletion are Contraindi-
cated in this stage, it only wastes

weaken the patient, and this is what we must try and guard against. But the use of Oiled Silk Jacket comes in splendidly by promoting perspiration and keeping the pores of the skin open.

Opium, used in the form of Dover's Powder is valuable, and is indicated by the continuation of pain by vigilance & restlessness: it generally relieves this condition and permits nature to fight the disease more satisfactorily.

The supporting treatment is of vast importance. This treatment embraces Tonic Remedies

Alcoholic Stimulants and Nutritious
diet = Alcohol given in form
of Milk Punch every hour or two
is a good form to give it in -
and at first for the diet Fluids
ad. lib.: is most efficient - Later
stronger foods may be given
Tonics during the Convalescence
are Light, Wine, and Quinine
ranks among the first =
Hot hand Bag of Water
is useful a good method of
giving the Quinine, or to get the
effects of Quinine, and I have
seen it used with success in
this Hospital